

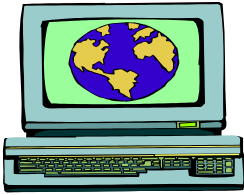
TOPIC 3: SAM II HR/PAYROLL DATA WAREHOUSE DATA MODEL

The purpose of this topic is to gain a understanding of how the HR Data Model is structured and organized to enable the Back End user to access employee and agency information. This topic also describes how to access the Data Model viewer in order to analyze table and field information.

Three ways of analyzing the HR Data Model's Tables and Fields are outlined. This includes; by Table Type, by Subject Area, and by Table Grouping.

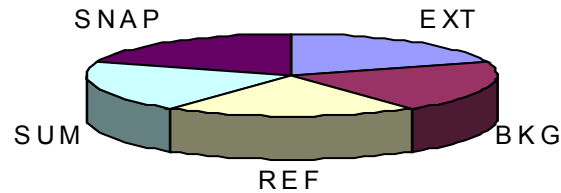
At the end of this topic, you will be able to:

- Describe the structure and organization of the Data Model
- Understand the each Table Type
- Access the Viewer to look up Table and Field information
- Research Tables by Subject Area
- Analyze Tables and Fields by Table Grouping



DATA MODEL APPROACH

Table Type



Subject Area

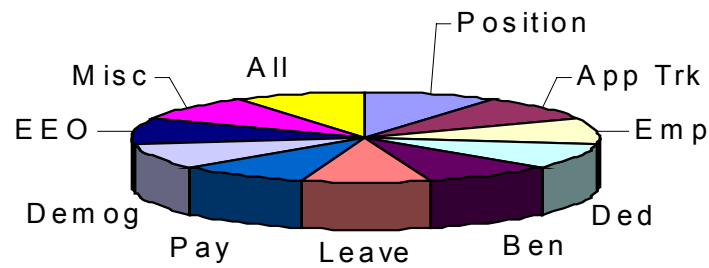
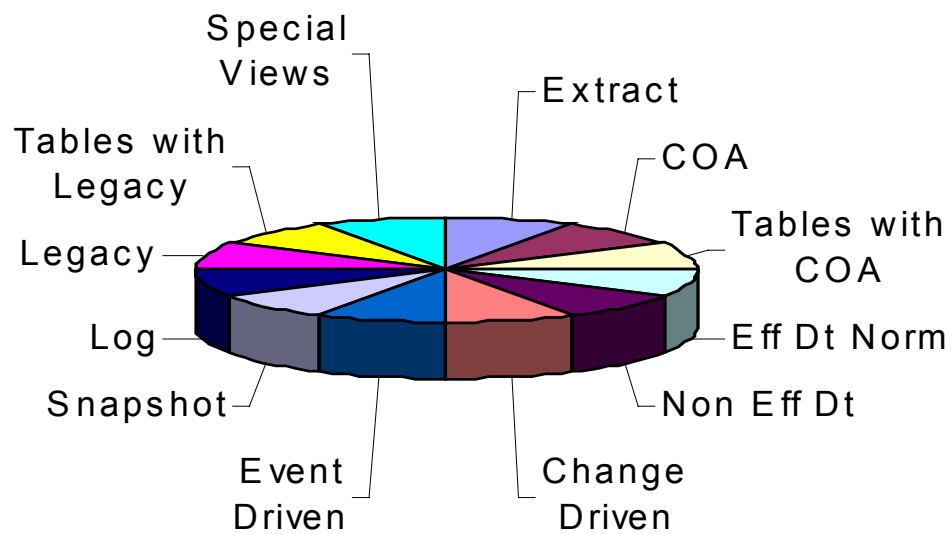


Table Grouping





DATA MODEL APPROACH

The approach to understand the Data Model is three-fold. First, by learning about the different Table Types. Second, by categorizing the different table types in a functional order called Subject Areas. Third, by analyzing how the tables can be grouped together based on the similarities of the key structures once populated into the HR Data Warehouse using the Load/ETL process.

TABLE TYPES

- ❑ EXTRACT TABLES (EXT)
- ❑ BACKGROUND TABLES (BKG)
- ❑ REFERENCE TABLES (REF)
- ❑ SUMMARY TABLES (SUM)
- ❑ SNAPSHOT TABLES (SNAP)

SUBJECT AREAS

- ❑ POSITION CONTROL
- ❑ APPLICANT TRACKING
- ❑ EMPLOYEE
- ❑ DEDUCTIONS
- ❑ BENEFITS
- ❑ LEAVE
- ❑ PAYROLL
- ❑ DEMOGRAPHICS
- ❑ EEO REPORTING
- ❑ MISCELLANEOUS
- ❑ ALL

TABLE GROUPING

- ❑ EXTRACT TABLES
- ❑ CHART OF ACCOUNTS TABLES
- ❑ TABLES CONTAINING COA CODES
- ❑ EFFECTIVE DATED NORMALIZED TABLES
- ❑ NON-EFFECTIVE DATED TABLES
- ❑ CHANGE DRIVEN SUMMARY TABLES
- ❑ EVENT DRIVEN SUMMARY TABLES
- ❑ SNAPSHOT TABLES
- ❑ LOG TABLES
- ❑ LEGACY TABLES
- ❑ TABLES CONTAINING LEGACY CODES
- ❑ SPECIAL VIEWS

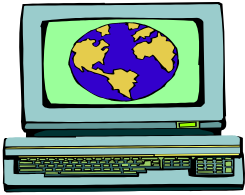


TABLE TYPES

- ❑ **EXTRACT TABLES (EXT)**
- ❑ **BACKGROUND TABLES (BKG)**
- ❑ **REFERENCE TABLES (REF)**
- ❑ **SUMMARY TABLES (SUM)**
- ❑ **SNAPSHOT TABLES (SNAP)**



TABLE TYPES

There are six types of tables; Extract, Background, Reference, Summary, and Snapshot. The Data Model's main table type's description include the following:

- ❑ **Extract (EXT)**- These tables store pay, leave, and deduction data generated by the payroll process. These tables have the greatest level of detail, and are used to populate many other warehouse tables.
- ❑ **Background (BKG)**- In the operational system, these tables are updated with employee and position attributes and values whenever their related transactions are processed. These tables will be duplicated in the HR Data Warehouse in order to maintain employee and position history records.
- ❑ **Reference (REF)**- Valid attributes for SAM II codes are stored on these tables. For example, every valid state and its short and long descriptions are stored on the State table.
- ❑ **Summary (SUM)**- These tables support the front-end tool by summarizing HR data for each business area. SUM data can be true summaries of existing tables or a combination of multiple sources "summarized" into one table for user convenience.
- ❑ **Snapshot (SNAP)** is the value set for a table or group of tables for a specific point in time when the snapshot was taken.

Each Table in the Data Model will also have a number of **VIEWS** associated with it. Views will capture another way to look at field information on a given table. These views will support the security requirements for access to the HR Data Warehouse.

These six tables are identified within the Data Model with the first three or four letter identifier. (e.g. EXT, BKG, REF, SUM, and SNAP respectively.) Each table types' key structure may be different based on the LOAD process and logic used to populated the data from the SAM II HR/Payroll system into the Data Warehouse.

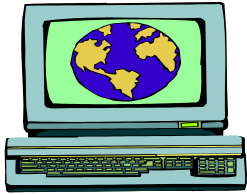


TABLE TYPES

EXTRACT TABLES (EXT)

EXT_DED_DETAIL	PCEF Deduction Detail Extract
EXT_GL_DED_DETAIL	XDEDD Pay Detail Extract
EXT_GL_PAY_DETAIL	XPAYD Pay Detail Extract
EXT_PAY_DETAIL	PCEF Pay Detail Extract
EXT_PCEF_EMPL_ATTR	PCEF Employee Attributes Extract
EXT_PCEF_HEADER	PCEF Header Record Extraction
EXT_GL_BEN_DETAIL	XDEDD Benefit Detail Extract
EXT_GL_FRG_DETAIL	XDEDD Fringe Detail Extract



TABLE TYPES

EXTRACT (EXT)-

The **Extract Tables** contain “raw data” that has been extracted from SAM II HR/Payroll operational system. One of their primary functions is to serve as building blocks for SUM tables. These tables store pay, leave, and deduction data generated by the payroll process. These tables have the greatest level of detail, and are used to populate many other warehouse tables.

Sequential files produced by SAM II HR/Payroll pay cycles will be split into logical groups (for example pay and deductions, sorted and summarized) processed by a program to add effective dates to the foreign keys and then output to a file. The output files will be directly uploaded to the appropriate extract table by a DB2 utility.

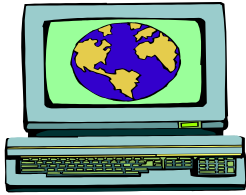


TABLE TYPES

BACKGROUND TABLES (BKG)

BKG_ADDR	Address Background Table
BKG_APCT	Applicant Background Table
BKG_APEV	Applicant Evaluation Profile Background Table
BKG_APPT	Employee Appointment Background Table
BKG_APSA	Applicant Scheduled Activity Background Table
BKG_APTS	Applicant by Test Score
BKG_AREF	Applicant Reference Background Table
BKG_ASGN	Employee Assignment Background Table
BKG_AUS1	Position User Defined Screen 1 Background Table
BKG_CAMT	COBRA Master Table
BKG_CCAN	Check Cancel Background Table
BKG_CMFT	COBRA Financial Background Table
BKG_CHST	COBRA History Background Table
BKG_COND	Contract Detail Background Table
BKG_CONP	Contract Summary Background Table
BKG_CQTR	COBRA Qualified Transaction Background Table
BKG_CSMT	COBRA Status Maintenance Background Table
BKG_D_EMP_RATE	Background Daily Employee Rate Table
BKG_DEDO	Deduction Option Background Table
BKG_DEDP	Deduction Parameters Background Table
BKG_DPNB	Dependent Benefits Background Table
BKG_DPND	Dependent Background Table
BKG_EEDH	Employee Education History Background Table
BKG_EEO6	EEO6 Employee Background Table
BKG_EFTC	Electronic Funds Transfer Background Table
BKG_EIND	Incident Detail Background Table
BKG_EMER	Emergency Contact Background Table
BKG_EMID	Employee by ID Table
BKG_EMPH	Employee History Background Table
BKG_EMPL_TRANSFER	Employee Transfer
BKG_ENMH	Employee Name History Background Table
BKG_EPEC	Performance Detail Comment Background Table
BKG_EPEV	Performance Summary Background Table
BKG_ESKL	Skills Profile Background Table
BKG_ESML	Employee Assignment Background Table
BKG_ETRP	Training Profile Background Table
BKG_EWRK	Prior Work Profile Background Table
BKG_FICA	FICA Table
BKG_INCC	Incident Detail Comments Background Table
BKG_JBIC	Job Interview Comments Background Table



TABLE TYPES

BACKGROUND TABLES (BKG)

The **Background Tables** in the operational system are updated nightly after their related SAM II transactions are processed in the SAM II HR/Payroll system. These tables will be duplicated in the HR Data Warehouse in order to maintain employee and position history records.

The Background tables can fall into different categories based upon the load process used to populate the Data Model. These categories will each impact what information is important in order to make table joins to create reports.

Background tables contain data extracted from SAM II for all available effective dated time periods. These tables are used to support more complex inquiries by more sophisticated users with a high level understanding of SQL and the Data Warehouse architecture, in particular the modeling of effective date.

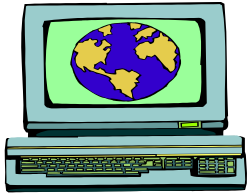


TABLE TYPES

BACKGROUND TABLES (BKG) cont.

BKG_JNOT	Job Notice Background Table
BKG_JNSA	Job Notice Schedule Activity Background Table
BKG_JOB_A	Job Application Background Table
BKG_JOB_I	Job Interview Background Table
BKG_JUS1	Position User Defined Screen 1 Background Table
BKG_LCNS	License Background Table
BKG_LVDT	Leave Detail Background Table
BKG_PASS	Pass Background Table
BKG_PAYP	Pay Parameter Background Table
BKG_PCHD	Pay Check Table
BKG_PHST	Position Table
BKG_PSAT	Position Authorization Background Table
BKG_PSBH	Position Budget History Background Table
BKG_PSID	Internal Position ID by Position Number Reference Table
BKG_PUD1	Position User Defined Screen 1 Background Table
BKG_PUD2	Position User Defined Screen 2 Background Table
BKG_PUD3	Position User Defined Screen 3 Background Table
BKG_REMARKS	MESH Remarks Extract
BKG_RESP	Reserve Summary Background Table
BKG_SSN	Background Social Security Number
BKG_TAXO	Employee Tax Parameter Table
BKG_TENM	Tenure Status Background Table
BKG_USR1	Position User Defined Screen 1 Background Table
BKG_USR2	Position User Defined Screen 2 Background Table
BKG_USR3	Position User Defined Screen 3 Background Table
BKG_USR4	Position User Defined Screen 4 Background Table
BKG_USR5	Position User Defined Screen 5 Background Table
BKG_USR6	Position User Defined Screen 6 Background Table
BKG_USR7	Position User Defined Screen 7 Background Table
BKG_USR8	Position User Defined Screen 8 Background Table
BKG_USR9	Position User Defined Screen 9 Background Table
BKG_VETR	Veteran Table



TABLE TYPES

BACKGROUND TABLES (BKG)

Background tables will generally be used to obtain information about employees, positions, applicants and job notices. While Reference tables provide supporting information about the meaning and usage of codes for an effective dated time period.

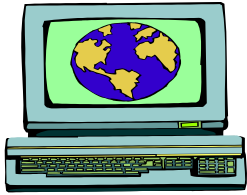


TABLE TYPES

REFERENCE TABLES (REF)

REF_A21C	A21 Category Reference Table
REF_A21F	A21 Function Reference Table
REF_A21R	A21 Reporting Period Reference Table
REF_AGYX	Extended Agency Reference Table
REF_APSR	Applicant Status Reason Reference Table
REF_APST	Applicant Status Reference Table
REF_ASDF	Applicant Selection Definition Background Table
REF_ATTG	Applicant Tracking Title Group Reference Table
REF_ATTN	Attorney Code Reference Table
REF_ATVY	Applicant Tracking Activity Reference Table
REF_AUDF	Applicant Tracking User Defined Fields Table
REF_BPCL	Benefit Plan Class Table
REF_BTCL	Benefit Type Class Reference Table
REF_BTSC	Benefit Type Sub Class Reference Table
REF_CATG	Event Category Reference Table
REF_CBAC	COBRA Activity Reference Table
REF_CBBC	COBRA Billing Cycle Reference Table
REF_CBEV	COBRA Event Reference Table
REF_CBMC	COBRA Message Reference Table
REF_CBQE	COBRA Qualifying Event Duration
REF_CBSG	COBRA Stage Reference Table
REF_CBST	COBRA Stage Code Reference Table
REF_CCPR	Client Compensatory Profile Reference Table
REF_CGRD	Course Grade Reference Table
REF_CHRL	Chart Rule Reference Table
REF_CIVS	Civil Service Status Reference Table
REF_CNTY	County Code Reference Table
REF_CORT	Court Reference Table
REF_CPID	Contract Period Identification Reference Table
REF_CPOL	Contract/Reserve Pay Policy Reference Table
REF_CRSE	Course Reference Table
REF_CTRY	Country Reference Table
REF_CYCL	Pay Cycle Reference Table
REF_DDPL	Deduction Policy Type Reference Table
REF_DEDA	Deduction Plan Alternate Rates Reference Table
REF_DEDF	Deduction Frequency Reference Table
REF_DEDT	Deduction Type Reference Table
REF_DEDX	Marginal Tax Rates Reference Table
REF_DEFB	Deduction / Fringe Benefits Reference Table



TABLE TYPES

REFERENCE TABLES (REF)

Reference Tables- Valid attributes for SAM II codes are stored on these tables. For example, every valid state and its short and long descriptions are stored on the State table.

The Reference tables consist mainly of code values and related information tables, which contain attributes with which a user can apply further limiting criteria. The REF tables also serve to identify and track valid values.

The Reference tables can fall into different categories based upon the load process used to populate the Data Model. These categories each impact what information is important in order to make table joins to create reports.

The Reference Table List continues on the next few pages.



TABLE TYPES

REFERENCE TABLES (REF) cont.

REF_DEGR	Degree Reference Table
REF_DEPARTMENT	MESH Department
REF_DEPT_CLASS	MESH Department Class
REF_DIVISION	MESH Division
REF_DPLN	Deduction Plan Reference Table
REF_DPOL	Deduction Policy Reference Table
REF_DSBL	Disability Reference Table
REF_DSCG	Discharge Type Reference Table
REF_ECSO	Case Officer Reference Table
REF_EEOC	EEO Job Category Reference Table
REF_EEOE	EEO Employer Information Table
REF_EEOF	EEO Function Reference Table
REF_EEOL	EEO Location Reference Table
REF_EEOM	EEO Multi-Location Reference Table
REF_EEOR	EEO Rank Reference Table
REF_EMPR	Employer Reference Table
REF_EMPS	Employment Status Reference Table
REF_EMPX	Extended Employment Status Reference Table
REF_ERAT	Career Rating Reference Table
REF_ERTP	Career Rating Type Reference Table
REF_ETHN	Ethnicity Reference Table
REF_ETYP	Evaluation type Reference Table
REF_EVNT	Event Type Reference Table
REF_FACT	Other Factor Reference Table
REF_FICL	FICA Class Reference Table
REF_FINI	Bank GHRS Account Reference Table
REF_FLHR	FLSA Hours Reference Table
REF_FLPR	FLSA Profile Reference Table
REF_FLWK	FLSA Work Cycle Reference Table
REF_GEOG	Geographic Area Reference Table
REF_GRDE	Grade Reference Table
REF_INSC	Insurance Company Reference Table
REF_IRTG	Interview Rating Reference Table
REF_ISTS	Incident Status Reference Table
REF_ITYP	Incident Type Reference Table
REF_JBRQ	Job Requirement Reference Table
REF_JNSR	Job Notice Status Reason Reference Table
REF_JNST	Job Notice Status Reference Table
REF_JNTP	Job Notice Type Reference Table
REF_JOBS	Job Status Reference Table

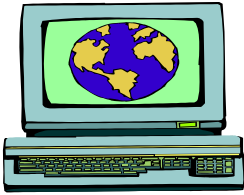


TABLE TYPES

REFERENCE TABLES (REF) cont.

REF_JSTA	Job Statements Reference Table
REF_LAWF	Law Firm Reference Table
REF_LDPR	Labor Distribution Profile Reference Table
REF_LEVF	Leave Frequency Reference Table
REF_LOC	Location Reference Table
REF_LPCT	Leave Policy Category Reference Table
REF_LPET	Leave Event Type Reference Table
REF_LPOL	Leave Policy Reference Table
REF_LPRL	Leave Progression Rule Table
REF_LPRT	Leave Policy Rate Reference Table
REF_LTYP	License Type Reference Table
REF_MAJR	Formal Education Major Reference Table
REF_MILB	Military Branch Reference Table
REF_MILR	Military Rank Reference Table
REF_MSTS	Marital Status Reference Table
REF_NMCR	Name Change Reason Reference Table
REF_OCCG	Occupational Group Reference Table
REF_ORGN	Organization Reference Table
REF_PACT	Personnel Action Reference Table
REF_PART	Personnel Action Reason Reference Table
REF_PAYF	Pay Event Frequency Reference Table
REF_PEDL	Personal Edit Data List Table
REF_PEDT	Personal Edit Rules Reference Table
REF_PEX2	Override Budget Level Reference Table
REF_PEXP	Expense Category Reference Table
REF_PNST	Pension System Reference Table
REF_PPET	Pay Policy Event Type Reference Table
REF_PPOL	Pay Policy Reference Table
REF_PPRL	Pay Progression Rule Reference Table
REF_PPRT	Pay Policy Rate Table
REF_PREX	Name Prefix Reference Table
REF_PSBP	Budget Preparation Reference Table
REF_PSBS	Position Budget Status Reference Table
REF_PSTP	Pass Type Reference Table
REF_PSTS	Position Status Reference Table
REF_PUDF	Position User Defined Field Table
REF_PYCL	Pay Class Reference Table
REF_PYGP	Payroll Group reference Table
REF_PYNO	Payroll Number Reference Table
REF_RANK	Agency Ranking Reference Table
REF_RCMD	recommendation Reference Table

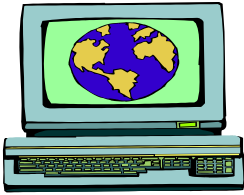


TABLE TYPES

REFERENCE TABLES (REF) cont.

REF_REFR	Referral Source Reference Table
REF_RELT	Relationship Reference Table
REF_RES	Residency Reference Table
REF_RNKM	Tenure Rank Reference Table
REF_RPRF	Performance Rating Profile Reference Table
REF_RPYF	Reserve Payout Factor Reference Table
REF_RSLT	Activity Result Reference Table
REF_SCHL	School Institution Table
REF_SECTION	MESH Section
REF_SFTF	Soft Fund Reference Table
REF_SKLL	Skill Level Reference Table
REF_SKLS	Skill Type Reference Table
REF_SPRQ	Special Requirement Reference Table
REF_ST	State Reference Table
REF_STEP	Step Reference Table
REF_STTL	Sub-title Reference Table
REF_SUF	Name Suffix Reference Table
REF_TAXC	Tax Class Reference Table
REF_TAXD	Tax Reporting Description Reference Code
REF_TAXM	Tax Marital Status Reference Table
REF_TAXP	Tax Parameters Reference Table
REF_TAXR	Tax Reporting Reference Table
REF_TAXT	Tax Treaty Reference Table
REF_TBL1	Table 1 Field Entry Table
REF_TBL2	Table 2 Field Entry Table
REF_TBL3	Table 3 Field Entry Table
REF_TBL4	Table 4 Field Entry Table
REF_TBL5	Table 5 Field Entry Table
REF_TBL6	Table 6 Field Entry Table
REF_TBL7	Table 7 Field Entry Table
REF_TBL8	Table 8 Field Entry Table
REF_TBL9	Table 9 Field Entry Table
REF_TCAT	Title Category Reference Table
REF_TCLT	Title Classification Reference Table
REF_TENS	Tenure Status Code Reference Table
REF_TETP	Test Type Reference Table
REF_TICA	Titles in Title Category Reference Table
REF_TIMC	Time Category Reference Table
REF_TITL	Title Reference Table
REF_TRKC	Tracking Code Reference Table



TABLE TYPES

REFERENCE TABLES (REF) cont.

REF_TTLG	Title Group Reference Table
REF_TXEN	Taxing Entity Reference Table
REF_ULOC	Union Local Reference Table
REF_USDF	User Defined Fields Table
REF_VETS	Veteran Status Reference Table
REF_WDAY	Work Day Reference Table
REF_WKCY	Work Cycle Reference Table
REF_WKTP	Work Type Reference Table

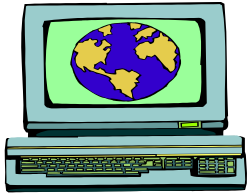


TABLE TYPES

SUMMARY TABLES (SUM)

SUM_BENEFITS	Agency Benefits Summary Table
SUM_DEDUCTIONS	Agency Deduction Summary Table
SUM_DEMOGRAPHICS	Demographics Summary Table
SUM_EMP_RATE	Employee Rate Summary Table
SUM_EMP_SALARY	Employee Salary Summary Table
SUM_EMPLOYEE	Employment Statistics Summary Table
SUM_LEAVE	Agency Leave Summary Table
SUM_LV_ACCR_USE	Leave Accrual Usage Summary Table
SUM_PAYROLL	Payroll Summary Table
SUM_POSITION	Agency Position Summary table



TABLE TYPES

SUMMARY TABLES (SUM)

Summary Tables are primarily for support of the web front-end interface and are in fact the only tables used by the front-end for report inquiries. SUM tables are a conglomeration of the most important data elements for each area of analysis.

Summary tables are one of the first stops for other report tool users looking for tables that contain a history of much of the common information required for reports without the complexity of effective dated joins to multiple tables. However, reliable joins from these tables to other tables are possible for users with a higher knowledge of SQL and an understanding of the Data Warehouse database architecture.

The Data Warehouse load process creates all tables identified as summaries. Summary tables can either be true summaries of an existing table, usually extract or log table data that is additive, and can be summarized on some subset of the keys of the table being summarized, or, a combination of data from multiple sources that has been 'summarized' into one table for user convenience.

In actuality, summary table is a misnomer in referring to any summary table contained in the HR Warehouse. Since human resource and payroll data, by its nature does not lend itself to summarization, the highest level of granularity possible is at the employee level. In most cases, it will be at a much lower level and is totally dependent on the number of unique keys that exist.



TABLE TYPES

SNAPSHOT TABLES (SNAP)

Table Name	Description
SNAP_EMPLOYEE	Snapshot Employee
SNAP_POSITION	Snapshot Position



TABLE TYPES

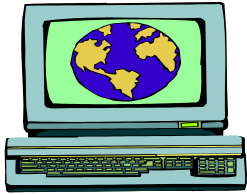
SNAPSHOT TABLES (SNAP)

Snapshot Tables - A large percentage of inquiries requested from the Data Warehouse will be of current information. To support these inquiries a set of snapshot tables and views were created to help facilitate inquiry and reporting needs.

The two SNAP tables were created to aid the Back-End user in writing reports. These tables contain a snapshot of employee and position data for a specified effective date.

Snapshot data will be wiped out and reloaded each night.

Given that an effective dated table can only have one set of results on a specific day, there will only be one record for each unique code updated nightly. Therefore, even though these tables and views will not be historical they will allow access to a broad range of data without the complexity of effected dated joins.



ACCESSING THE VIEWER

Step 1



Step 2

STATEWIDE ADVANTAGE
FOR MISSOURI (SAM II)

Step 3



Step 4



Step 5



Step 6





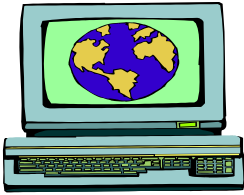
ACCESSING THE VIEWER

You will now locate the Data Warehouse Data Model information on the internet/intranet that will allow you to become familiar with the tables and fields in the future. You will be able to browse the Data Model tables and fields.

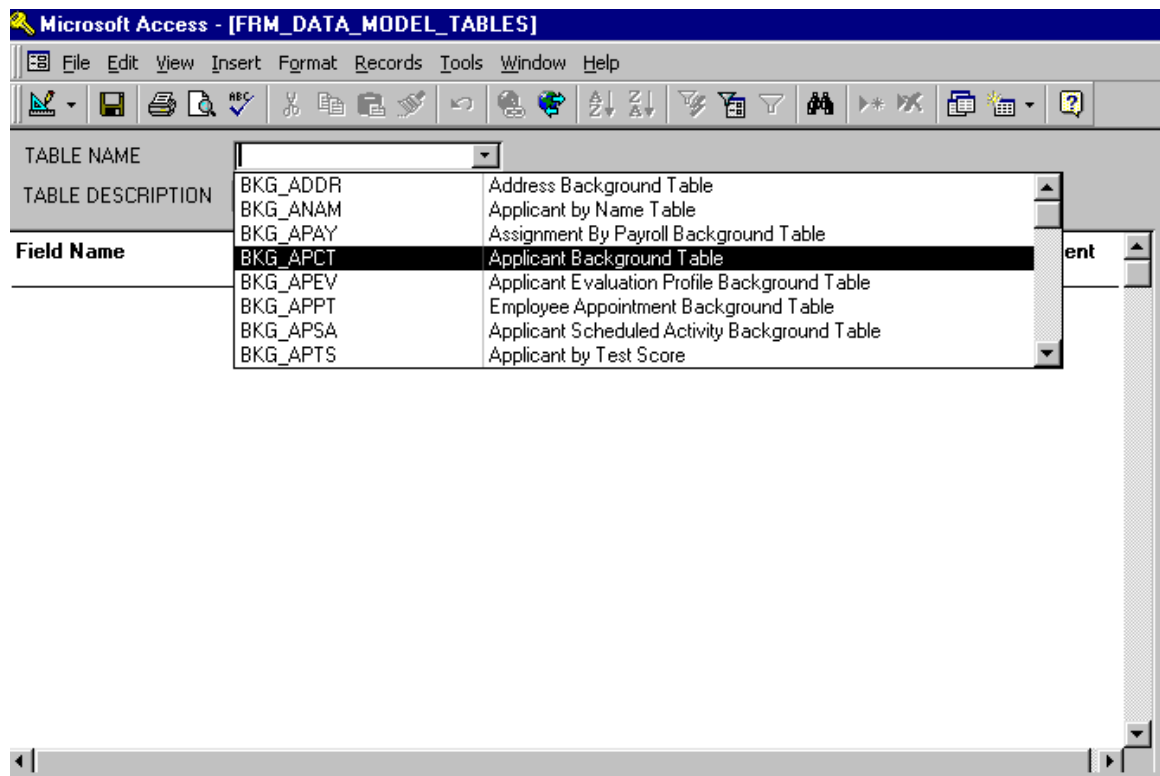
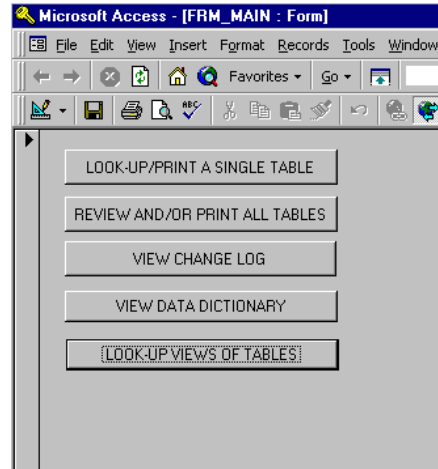
Accessing Data Warehouse Data Model Fields and Tables on the Web

By following the procedures outlined below, you should be able to locate the information you need quickly and easily.

- Step 1** Start your Internet browser and open the State of Missouri home page (<http://www.state.mo.us/>).
- Step 2** Click on the **(SAM II)** logo in the lower left side of the page (scroll down) to access the SAM II web page.
- Step 3** Click on the SAM II HR/Payroll text above the graphic to the right.
- Step 4** Click on the Data Warehouse icon in the index list on the left side of the page.
- Step 5** Click on the **SAM II HR/Payroll Data Warehouse** icon.
- Step 6** Click on the **Data Model/Dictionary** icon.
- Step 7** You now have two choices. You can choose to download the Access database to your hard drive and browse it offline, or simply browse the database online. If you want to run the viewer from the network (browse online), then check Open it and click **OK**. If you want to run it from your hard drive then simply click OK in the Dialog box and tell it where to save the database. Then click **Open**.
- Step 8** The Access Logon security dialog box will appear with your name in the top cell asking for your password in the bottom one. Simply Click **OK**.



THE DATA MODEL VIEWER





THE DATA MODEL VIEWER

The Microsoft Access HR Data Model Viewer is a research tool for the Back-end user to learn about the Data Model's tables and field content and structure.

Accessing Data Warehouse Data Model Fields and Tables on the Web

By following the procedures outlined below, you should be able to locate the information you need quickly and easily.

Step 1 Click on the **(LOOK-UP/PRINT A SINGLE TABLE)** button

From this selection, on the TABLE NAME the user can scan for the Table's found in the HR Data Model from an alphabetically ordered list.

Step 2 Click on the **(BKG ADDR)** Table Name.

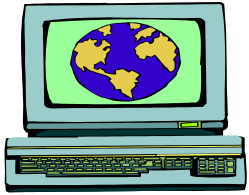
Once the TABLE NAME is selected, the Table Description, Field Name, Field Description, Field Datatype, Primary Key, Foreign Key, and Foreign Key Parent Table data appears on the screen.

Other buttons:

- ❑ The REVIEW AND/OR PRINT ALL TABLES button offers the same table detail.

(Warning: Hitting the Print button will print all tables.)

- ❑ The VIEW DATA MODEL CHANGE LOG button is used to record changes to the Data Model and the Viewer. The Data Warehouse technical support staff will use this button only.
- ❑ The VIEW DATA DICTIONARY button offers another view of table names with table long descriptions. This view also contains an OPEN FIELD INFORMATION button for each table. This view offers Field Names and Field Descriptions.
- ❑ The LOOK UP VIEWS OF TABLES drop-down list button displays a list of table views - 26 for each table. All list entries have an agency number suffix. Choosing one in the list shows fields for that table with data limited to the agency indicated by the suffix number.



KEY FIELDS

TABLE NAME		BKG_ADDR			
TABLE DESCRIPTION		Address Background Table			
Field Name	Field Description	Field Datatype	Prim Key	For Key	Foreign Key Parent Table
ADDR_EFF_DATE	Address Effective Date	CHAR(8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
GHRIS_IN_EMPL_ID_NO	GHRIS Internal Employee ID Number	CHAR(10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ADDR_EXP_DATE	Address Expiration Date	CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
DELETE_FL		CHAR(1)	<input type="checkbox"/>	<input type="checkbox"/>	
HOME_CNTY_CD		CHAR(3)	<input type="checkbox"/>	<input type="checkbox"/>	
HOME_CTRY_CD	Country Code	CHAR(3)	<input type="checkbox"/>	<input type="checkbox"/>	
HOME_ST_CD	State Code	CHAR(3)	<input type="checkbox"/>	<input type="checkbox"/>	
LAST_UPDT_DATE		CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
LAST_UPDT_USER_ID		CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
MAIL_ADDR_LINE_1	Mailing Address Line One	CHAR(30)	<input type="checkbox"/>	<input type="checkbox"/>	
MAIL_ADDR_LINE_2	Mailing Address Line 2	CHAR(30)	<input type="checkbox"/>	<input type="checkbox"/>	



KEY FIELDS

Database tables are created with key fields. It is critical to understand the key field structure of a table in order to determine the best type of join required to create a Back-end report with the correct data pulling from the different tables.

Parent Table is a table where the columns that make up the primary key are a foreign key in another table, e.g., State Code is a primary key of the State Table that is also stored in other tables as part of an address.

Child Table is a table that has columns, which are primary keys of another table and the table rows are therefore dependent on rows in the primary table, e.g., the Address table contains a State Code column, which is the primary key of the State table. A table can be a primary table only, a dependent table only or both depending on the relationship being considered.

Primary Key defines the columns in a table (Parent Table) that uniquely identify rows in that table.

Foreign Key defines columns in a table (Child Table) that are dependent on the data in another table (Parent Table).



TABLE AND FIELD DESCRIPTIONS

Microsoft Access - [FRM_DATA_DICT_TABLES : Form]

File Edit View Insert Format Records Tools Window Help

HR Data Dictionary

TABLE NAME:	TABLE DESCRIPTION:
BKG_ADDR	The Employee Address Background Table stores current and historical records of the employee's mailing address. Also stores the employee's home county, state, and country.
OPEN FIELD INFORMATION	
BKG_APCT	The Applicant Background Table stores applicant IDs and full names, by internal ID number.
OPEN FIELD INFORMATION	
BKG_APEV	The Applicant Evaluation Profile Background Table stores basic appointment information. It records the employee's date of appointment, probationary period, and pension information. All appointment-related information pertains to a position the employee holds within the organization. If an employee within your
OPEN FIELD INFORMATION	
BKG_APPT	The Employee Appointment Background Table stores current and historical records of the employee's home address, phone number, and mailing address.
OPEN FIELD INFORMATION	
BKG_APSA	The Applicant Scheduled Activity Table stores a list of activities which need to be completed prior to hiring an applicant. For example, it might store dates of interviews or evaluations (e.g., typing test or physical exam).
OPEN FIELD INFORMATION	
BKG_APTS	The Applicant By Test Score Background Table stores the combined results of each applicant's evaluation associated with a

Record: 1 of 261

Form View

Microsoft Access - [FRM_DATA_DICT_FIELDS : Form]

File Edit View Insert Format Records Tools Window Help

HR Data Dictionary

FIELD NAME:	TABLE NAME	FIELD DESCRIPTION:
ADDR_EFF_DATE	BKG_ADDR	Address Effective Date is the effective date of the corresponding Address record.
ADDR_EXP_DATE		Address Expiration Date is the expiration date of the corresponding Address record.
MAIL_CTRY_CD		Country Code is a standard country abbreviation associated with the mailing address.
HOME_CTRY_CD		Home Country Code is a standard country abbreviation for the country code associated with the employee's home address.
HOME_CNTY_CD		Home County Code is the standard county code associated with the employee's home address.



TABLE AND FIELD DESCRIPTIONS

In order to determine the exact content of any given table, viewing the field information is critical. To view the table and field descriptions, the view Data Dictionary selection is necessary. The user can then view the Data Model's Tables and Field content and structure.

Accessing Data Warehouse Data Model Fields and Tables on the Web

By following the procedures outlined below, you should be able to locate the information you need quickly and easily.

Step 1 Click on the **(VIEW DATA DICTIONARY)** button.

From this selection, on the TABLE NAME or from the record count at the bottom of the viewer, the user can scan for the Table's Long Description.

Step 2 On the TABLE NAME (BKG_ADDR), Click on the **(OPEN FIELD INFORMATION)** button.

Once the FIELD INFORMATION is selected, the FIELD NAME AND FIELD LONG DESCRIPTION appears on the screen. Using the record count at the bottom of the screen each field's name and description can be viewed.

The FIELD DESCRIPTION information is very important in understanding the values and data needed for a particular report.



DATA MODEL SUBJECT AREAS AND TABLES

- ❑ **Position Control**
- ❑ **Applicant Tracking**
- ❑ **Employee**
- ❑ **Deductions**
- ❑ **Benefits**
- ❑ **Leave**
- ❑ **Payroll**
- ❑ **Demographics**
- ❑ **EEO Reporting**
- ❑ **Miscellaneous**
- ❑ **All**



SUBJECT AREAS and TABLES

A functional approach of using the HR Data Model Viewer to research table and field information is to first determine the main area where the tables may be located.

For the purposes of Data Model research and understanding, the tables have been grouped into the following subject areas: Position Control, Applicant Tracking, Employee, Deductions, Benefits; Leave, Payroll, Demographics, EEO Reporting, and All.

Some tables may fall into more than one subject area depending on the field level content.

A list of tables sorted by Table Name Code with table names and table long descriptions are contained in the appendix.



POSITION

Position	
BKG_PHST	Position Table
BKG_PSAT	Position Authorization Background Table
BKG_PSBH	Position Budget History Background Table
BKG_PSID	Internal Position ID by Position Number Reference Table
BKG_PUD1	Position User Defined Screen 1 Background Table
REF_CIVS	Civil Service Status Reference Table
REF_CNTY	County Code Reference Table
REF_LDPR	Labor Distribution Profile Reference Table
REF_LOC	Location Reference Table
REF_PSBS	Position Budget Status Reference Table
REF_PSTS	Position Status Reference Table
REF_ST	State Reference Table
REF_STTL	Sub-title Reference Table
REF_TCAT	Title Category Reference Table
REF_TCLT	Title Classification Reference Table
REF_TICA	Titles in Title Category Reference Table
REF_TITL	Title Reference Table
REF_TTLG	Title Group Reference Table
SNAP_POSITION	Snapshot Position
SUM_POSITION	Position Statistics Summary Table

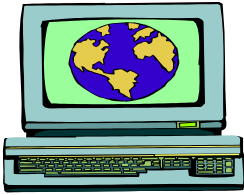


POSITION

The **Position Tables** support the duties and decisions necessary for staff planning, position monitoring and position analysis. It allows monitoring of job creation, status (i.e., filled, vacant, or frozen).

Position History data will be extracted from SAM II HR/Payroll database tables (e.g. position history table) and a one time conversion from existing legacy systems.

The position history query will provide the user with the capability of viewing position history information grouped by any department/agency level.



APPLICANT TRACKING

Applicant Tracking	
BKG_APCT	Applicant Background Table
BKG_APEV	Applicant Evaluation Profile Background Table
BKG_APSA	Applicant Scheduled Activity Background Table
BKG_APTS	Applicant by Test Score
BKG_AREF	Applicant Reference Background Table
BKG_AUS1	Applicant Status User Defined background Table
BKG_JBIC	Job Interview Comments Background Table
BKG_JNOT	Job Notice Background Table
BKG_JNSA	Job Notice Schedule Activity Background Table
BKG_JOBA	Job Application Background Table
BKG_JOBI	Job Interview Background Table
BKG_JUS1	Job Notice User Defined Screen Background Table
REF_APSR	Applicant Status Reason Reference Table
REF_APST	Applicant Status Reference Table
REF_ASDF	Applicant Selection Definition Background Table
REF_ATTG	Applicant Tracking Title Group Reference Table
REF_ATVY	Applicant Tracking Activity Reference Table
REF_FACT	Other Factor Reference Table
REF_GEOG	Geographic Area Reference Table
REF_IRTG	Interview Rating Reference Table
REF_JBRQ	Job Requirement Reference Table
REF_JNSR	Job Notice Status Reason Reference Table
REF_JNST	Job Notice Status Reference Table
REF_JNTP	Job Notice Type Reference Table
REF_JSTA	Job Statements Reference Table
REF_RANK	Agency Ranking Reference Table
REF_RCMD	Recommendation Reference Table
REF_REFR	Referral Source Reference Table
REF_RSLT	Activity Result Reference Table
REF_SPRQ	Special Requirement Reference Table
REF_TETP	Test Type Reference Table



APPLICANT TRACKING

Applicant Tracking Tables capture data to assist in the hiring process. These tables follow the applicant's progress through the hiring process. It records personal data such as gender, age, race, veteran status, handicap status, address, telephone numbers, skills profile, and test scores.



EMPLOYEE

Employee	
BKG_ADDR	Address Background Table
BKG_APPT	Employee Appointment Background Table
BKG_ASGN	Employee Assignment Background Table
BKG_EMER	Emergency Contact Background Table
BKG_EMPH	Employee History Background Table
BKG_ENMH	Employee Name History Background Table
BKG_ESML	Employee Assignment Background Table
BKG_REMARKS	MESH Remarks Extract
BKG_USR1-9	User Defined Screen 1-9 Background Table
REF_CCPR	Client Compensatory Profile Reference Table
REF_CIVS	Civil Service Status Reference Table
REF_CNTY	County Code Reference Table
REF_CTRY	Country Reference Table
REF_DEPARTMENT	MESH Department
REF_DEPT_CLASS	MESH Department Class
REF_DIVISION	MESH Division
REF_EMPS	Employment Status Reference Table
REF_EMPX	Extended Employment Status Reference Table
REF_JOBS	Job Status Reference Table
REF_LDPR	Labor Distribution Profile Reference Table
REF_LOC	Location Reference Table
REF_NMCR	Name Change Reason Reference Table
REF_OCCG	Occupational Group Reference Table
REF_PACT	Personnel Action Reference Table
REF_PART	Personnel Action Reason Reference Table
REF_PREX	Name Prefix Reference Table
REF_RELT	Relationship Reference Table
REF_SECTION	MESH Section
REF_ST	State Reference Table
REF_STTL	Sub-title Reference Table
REF_SUFX	Name Suffix Reference Table
REF_TCLT	Title Classification Reference Table
REF_TICA	Titles in Title Category Reference Table
REF_TITL	Title Reference Table
REF_TTLG	Title Group Reference Table
SNAP_EMPLOYEE	Snapshot Employee
SUM_EMPLOYEE	Employment Statistics Summary Table



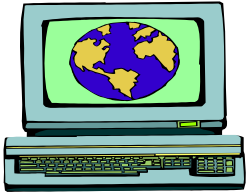
EMPLOYEE

The tables in this subject are of two combinations: Employee History and Employee Data.

Employee History data will be extracted from SAM II HR/Payroll database tables, e.g., employee table, employee assignment table, and employee appointment table, as well as a one-time conversion from the PMS legacy system.

The employee history query will provide the user with the capability of viewing employee history information grouped by any department/agency level.

Employee Data – This area will provide the ability to track and analyze the personnel actions involving an individual employee during their time of employment with the agency.



DEDUCTIONS

Deductions	
BKG_DEDO	Deduction Option Background Table
BKG_DEDP	Deduction Parameters Background Table
BKG_FICA	FICA Table
BKG_TAXO	Employee Tax Parameter Table
EXT_DED_DETAIL	PCEF Deduction Detail Extract
EXT_GL_DED_DETAIL	XDEDD Pay Detail Extract
REF_ATTN	Attorney Code Reference Table
REF_CATG	Event Category Reference Table
REF_CORT	Court Reference Table
REF_DDPL	Deduction Policy Type Reference Table
REF_DEDA	Deduction Plan Alternate Rates Reference Table
REF_DEDF	Deduction Frequency Reference Table
REF_DEDT	Deduction Type Reference Table
REF_DEDX	Marginal Tax Rates Reference Table
REF_DEFB	Deduction / Fringe Benefits Reference Table
REF_DPLN	Deduction Plan Reference Table
REF_DPOL	Deduction Policy Reference Table
REF_FICL	FICA Class Reference Table
REF_LAWF	Law Firm Reference Table
REF_PNST	Pension System Reference Table
REF_TAXC	Tax Class Reference Table
REF_TAXD	Tax Reporting Description Reference Code
REF_TAXM	Tax Marital Status Reference Table
REF_TAXP	Tax Parameters Reference Table
REF_TAXR	Tax Reporting Reference Table
REF_TAXT	Tax Treaty Reference Table
REF_TXEN	Taxing Entity Reference Table
SUM_DEDUCTIONS	Agency Deduction Summary Table



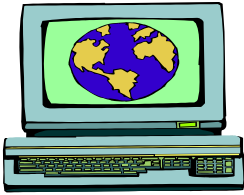
DEDUCTIONS

Deduction data will be extracted from the pay-cycle extract file (PCEF) and from deduction detail and summary database tables.

The deduction data query will provide the user with the capability of viewing employee deduction information grouped by any department/agency level at various degrees of summarization.

In this area, analysis can be performed by date, a range of dates, by Gross-to-Net (GTN) run number, a range of GTN run numbers, payroll date, or cycle code. This information can be selected for a particular agency/organization or for all state agencies.

Additional analysis can be performed on what employees have specific deductions, the rate of deductions, court number, law firm, dock number, beneficiary and other information.



BENEFITS

Benefits	
BKG_DPBN	Dependent Benefits Background Table
BKG_DPND	Dependent Background Table
REF_BPCL	Benefit Plan Class Table
REF_BTCL	Benefit Type Class Reference Table
REF_BTSC	Benefit Type Sub Class Reference Table
REF_CATG	Event Category Reference Table
REF_PNST	Pension System Reference Table
SUM_BENEFITS	Agency Benefits Summary Table



BENEFITS

The benefits area provides the information needed for the agency to generate reports concerning employee benefit payouts and activity. These reports can be generated for a single date, a range of dates, a single payroll run, or multiple payroll runs. Information can be selected by benefit category, type, plan, or salary range, in addition, to the full accounting line to which the benefit(s) were charged.

This area is very similar to and provides the same basic functionality as the deductions area. The one exception being the availability of the complete Chart of Accounts for how a benefit was paid.



LEAVE

Leave	
BKG_LVDT	Leave Detail Background Table
REF_CATG	Event Category Reference Table
REF_CHRL	Chart Rule Reference Table
REF_EVNT	Event Type Reference Table
REF_FLHR	FLSA Hours Reference Table
REF_FLPR	FLSA Profile Reference Table
REF_FLWK	FLSA Work Cycle Reference Table
REF_LPET	Leave Event Type Reference Table
REF_LPOL	Leave Policy Reference Table
REF_LPRL	Leave Progression Rule Table
REF_LPRT	Leave Policy Rate Reference Table
SUM_LEAVE	Leave Summary Table
SUM_LV_ACCR_USE	Leave Accrual Usage Summary Table



LEAVE

Leave data will be extracted from the pay-cycle extract file (PCEF), as well as from leave detail and summary database tables.

The leave data query will provide the user with the capability of viewing employee leave information grouped by any department/agency level at various degrees of summarization.

Leave information may be analyzed by date, a range of dates, for a specific payroll or a range of payrolls as required. These reports may be selected for a particular leave attribute, such as category, type, or leave policy, by title, by work location, or resident location.

The SAM II HR/Payroll system allows three types of leave balance calculations defined by the category calculation id:

- ☐ Inception to date (ID)
- ☐ Year to date (YD)
- ☐ Leave year to date (LY)

These types designate the time period to be used for summing leave accruals and usage to calculate a balance. The SUM_LV_ACCR_USE table selects the appropriate records to sum together to obtain a balance at a point in time, regardless of the type.



PAYROLL

Payroll	
BKG_CCAN	Check Cancel Background Table
BKG_COND	Contract Detail Background Table
BKG_CONP	Contract Summary Background Table
BKG_EFTC	Electronic Funds Transfer Background Table
BKG_PAYP	Pay Parameter Background Table
BKG_PCHD	Pay Check Table
BKG_RESP	Reserve Summary Background Table
EXT_PAY_DETAIL	PCEF Pay Detail Extract
EXT_GL_PAY_DETAIL	XPAY Pay Detail Extract
EXT_PCEF_HEADER	PCEF Header Record Extraction
REF_A21C	A21 Category Reference Table
REF_A21F	A21 Function Reference Table
REF_A21R	A21 Reporting Period Reference Table
REF_CATG	Event Category Reference Table
REF_CHRL	Chart Rule Reference Table
REF_CPID	Contract Period Identification Reference Table
REF_CPOL	Contract/Reserve Pay Policy Reference Table
REF_CYCL	Pay Cycle Reference Table
REF_EVNT	Event Type Reference Table
REF_FINI	Bank GHRS Account Reference Table
REF_GRDE	Grade Reference Table



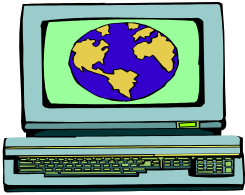
PAYROLL

Pay data will be extracted from the pay-cycle extract file (PCEF).

The payroll data query will provide the user with the capability of viewing employee payroll information grouped by any department/agency level at various degrees of summarization.

This area will facilitate the detailed analysis of an agency's payroll data. Analysis is possible for a single date, a range of dates, a Gross To Net (GTN) run number, a range of GTN run numbers, by Payroll Date, or Cycle Code. Query results could include any or all accounting attributes and event attributes.

Additional Payroll tables are found on the following page.

**PAYROLL cont.**

REF_LDPR	Labor Distribution Profile Reference Table
REF_PAYF	Pay Event Frequency Reference Table
REF_PPET	Pay Policy Event Type Reference Table
REF_PPOL	Pay Policy Reference Table
REF_PPRL	Pay Progression Rule Reference Table
REF_PPRT	Pay Policy Rate Table
REF_PYCL	Pay Class Reference Table
REF_PYGP	Payroll Group reference Table
REF_PYNO	Payroll Number Reference Table
REF_RPYF	Reserve Payout Factor Reference Table
REF_STEP	Step Reference Table
REF_TIMC	Time Category Reference Table
REF_WDAY	Work Day Reference Table
REF_WKCY	Work Cycle Reference Table
SUM_EMP_RATE	Employee Rate Summary Table
SUM_EMP_SALARY	Employee Salary summary Table
SUM_PAYROLL	Payroll Summary Table



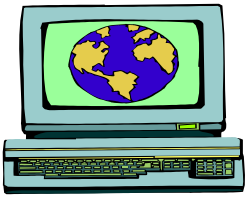
PAYROLL cont.

After each SAM II payroll, there is a set of sequential file extracts produced by the system that detail the payroll activity for the pay cycle. Extraction of these files is essentially a process of converting the records for each file to the warehouse format and otherwise preparing them for upload. Extracted files include:

- ❑ PCEF – Pay Cycle Extraction File
- ❑ XPAYD – General Ledger Pay Detail Extraction File
- ❑ XDEDD – General Ledger Deduction Detail Extraction File
- ❑ LVEX – Leave Balance Extraction File

The XDEDD and XPAYD files are summarized by employee, appointment, event code, document number, and accounting line for before loading into the Data Warehouse extract tables.

The XDEDD and XPAYD files are summarized by employee, appointment, category code, and accounting line for before loading into the Data Warehouse summary tables. These tables include Sum Payroll, Sum Benefit, and Sum Deduction and are the tables used by the front-end for report inquiries.



DEMOGRAPHICS

Demographics	
BKG_ADDR	Address Background Table
BKG_ENMH	Employee Name History Background Table
BKG_VETR	Veteran Table
EXT_PCEF_EMPL_ATTR	PCEF Employee Attributes Extract
REF_CNTY	County Code Reference Table
REF_CTRY	Country Reference Table
REF_DEGR	Degree Reference Table
REF_DSBL	Disability Reference Table
REF_DSCG	Discharge Type Reference Table
REF_ETHN	Ethnicity Reference Table
REF_LOC	Location Reference Table
REF_MAJR	Formal Education Major Reference Table
REF_MILB	Military Branch Reference Table
REF_MILR	Military Rank Reference Table
REF_MSTS	Marital Status Reference Table
REF_RESID	Residency Reference Table
REF_ST	State Reference Table
REF_ULOC	Union Local Reference Table
REF_VETS	Veteran Status Reference Table
SUM_DEMOGRAPHICS	Demographics Summary Table

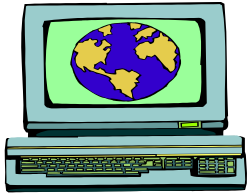


DEMOGRAPHICS

Demographics data will be extracted from the database tables (e.g. employee table, veteran table, etc).

The demographics query will provide the user with the capability of viewing employee demographic information grouped by any department/agency level.

This area will allow the analysis of employee information related to demographics, at the statewide level, at a specific point in time.



EEO REPORTING

EEO Reporting	
BKG_EEO6	EEO6 Employee Background Table
REF_EEOC	EEO Job Category Reference Table
REF_EEOE	EEO Employer Information Table
REF_EEOF	EEO Function Reference Table
REF_EEOL	EEO Location Reference Table
REF_EEOM	EEO Multi-Location Reference Table
REF_EEOR	EEO Rank Reference Table



EEO REPORTING

EEO Reporting records personal data relating to the EEO reporting requirements. This data includes race, primary appointment, citizenship, gender, EEO full time, etc.



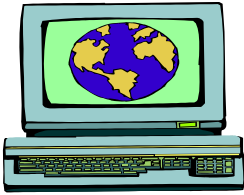
MISCELLANEOUS

Misc	
BKG_PASS	Pass Background Table
BKG_TENM	Tenure Status Background Table
REF_EMPR	Employer Reference Table
REF_INSC	Insurance Company Reference Table
REF_PSTP	Pass Type Reference Table
REF_RNKM	Tenure Rank Reference Table
REF_SCHL	School Institution Table
REF_SFTF	Soft Fund Reference Table
REF_TENS	Tenure Status Code Reference Table
REF_TRKC	Tracking Code Reference Table



MISCELLANEOUS (Not associated with other areas)

These tables are not necessarily associated with any of the other subject areas.



HR DATA WAREHOUSE

ALL

ALL	
BKG_EMID	Employee ID Table
BKG_SSN	Internal Employee ID by SSN
REF_AGYX	Extended Agency Reference Table
REF_ORGN	Organization Reference Table

TABLE NAME	BKG_EMID				
TABLE DESCRIPTION					
Field Name	Field Description	Field Datatype	Prim Key	For Key	Foreign Key Parent Table
EMP_ID		CHAR(10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DELETE_FL		CHAR(1)	<input type="checkbox"/>	<input type="checkbox"/>	
GHRN_IN_EMPL_ID_NO		CHAR(10)	<input type="checkbox"/>	<input type="checkbox"/>	
LAST_UPDT_DATE		CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
LAST_UPDT_USER_ID		CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	

TABLE NAME	BKG_PSID				
TABLE DESCRIPTION	Internal Position ID by Position Number Reference Table				
Field Name	Field Description	Field Datatype	Prim Key	For Key	Foreign Key Parent Table
GHRN_IN_POSN_ID_NO	GHRN Internal Position ID Number	CHAR(15)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
AGCY_CD	Agency Code	CHAR(3)	<input type="checkbox"/>	<input type="checkbox"/>	
DELETE_FL		CHAR(1)	<input type="checkbox"/>	<input type="checkbox"/>	
FISC_YR	Fiscal Year	CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
LAST_UPDT_DATE		CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
LAST_UPDT_USER_ID		CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
ORGN_CD	Organization Code	CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
POSN_NUM	Position Number	CHAR(12)	<input type="checkbox"/>	<input type="checkbox"/>	



ALL

(Associated with all areas)

Many tables can be found in multiple subject areas such as payroll and position, and benefits and deductions. The tables listed in this subject area of “ALL” falls into every subject area.

The SAM II HR/Payroll system creates a unique system-generated number assigned to each employee (GHRN_INTERNAL_EMP_ID) and each position (GHRN_INTERNAL_POSN_ID). These unique numbers do not change when an employee changes their name or social security number. Different from the Internal ID, the SAM II system also uses an Employee ID, which is the same value as the employee’s Social Security Number.

When creating certain reports, it is important to join the correct tables in order to link the Employee ID with the Social Security Number and with the Internal ID.



TABLE GROUPING

Data Model Structure by Table Grouping

- ❑ **Extract Tables**
- ❑ **Chart of Accounts Tables**
- ❑ **Tables containing COA Codes**
- ❑ **Effective Dated Normalized Tables**
- ❑ **Non-Effective Dated Tables**
- ❑ **Change Driven Summary Tables**
- ❑ **Event Driven Summary Tables**
- ❑ **Snapshot Tables**
- ❑ **Log Tables**
- ❑ **Legacy Tables**
- ❑ **Tables containing Legacy codes**
- ❑ **Special Views**



TABLE GROUPING

The six main table types are grouped according to a similar key structures based on the LOAD (ETL) process and logic used to populated the data from the SAM II HR/Payroll system into the Data Warehouse.

The main groupings of these tables are described operationally; Extract Tables, Chart of Accounts Tables, Tables containing COA Codes, Effective Dated Normalized Tables, Non-Effective Dated Tables, Change Driven Summary Tables, Event Driven Summary Tables, Snapshot Tables, Log Tables, Legacy Tables, Tables containing Legacy codes, and Special Views.

There are similar key structures sharing certain distinct characteristics for tables to be grouped together.

Understanding a table's key structure is critical in determining the best method of joining tables to meet reporting requirements.

The following section of Table Groupings explains the similarity of each table grouping and provides a list of all related tables.

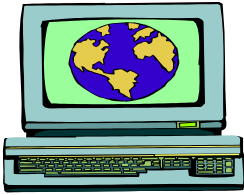


TABLE GROUPING

EXTRACT TABLES

Table Name	Description
EXT_GL_DED_DETAIL	XDEDD General Ledger Ded Extract
EXT_GL_PAY_DETAIL	XPAYD General Ledger Pay Extract
EXT_PCEF_HEADER	PCEF Header Record Extraction
EXT_PCEF_EMPL_ATTR	PCEF Employee Attributes Extract
EXT_PAY_DETAIL	PCEF Pay Detail Extract
EXT_GL_FRG_DETAIL	XDEDD Fringe Detail Extract
EXT_GL_BEN_DETAIL	XDEDD Benefit Detail Extract

TABLE NAME	<input type="text" value="EXT_PAY_DETAIL"/>
TABLE DESCRIPTION	<input type="text" value="PCEF Pay Detail Extract"/>

Field Name	Field Description	Field Datatype	Prim Key	For Key	Foreign Key Parent Table
INT_EXT_COUNTER	Internal Extract Counter	CHAR(12)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ACTV_CD	Activity Code	CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
AGCY_CD	Agency Code	CHAR(3)	<input type="checkbox"/>	<input type="checkbox"/>	
APPR_CD	Appropriation Unit Code	CHAR(9)	<input type="checkbox"/>	<input type="checkbox"/>	
APPT_DATE	Appointment Date	CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
APPT_ID	Appointment ID	CHAR(1)	<input type="checkbox"/>	<input type="checkbox"/>	
BACC_CD	Balance Sheet Account Code	CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
BANK_CD	Bank Account Code	CHAR(5)	<input type="checkbox"/>	<input type="checkbox"/>	
BANK_GHRS_ACCT_CD	HR Bank Account Code	CHAR(2)	<input type="checkbox"/>	<input type="checkbox"/>	
CATG_CD	Category Code	CHAR(5)	<input type="checkbox"/>	<input type="checkbox"/>	
CATG_EFF_DATE	Category Effective Date	CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	



TABLE GROUPING

EXTRACT TABLES

The **Extract (EXT)** tables contain “raw data” that has been extracted from SAM II HR/Payroll operational system. One of their primary functions is to serve as building blocks for SUM tables. These tables store pay, leave, and deduction data generated by the payroll process.

Sequential files produced by SAM II HR/Payroll pay cycles are split into logical groups (e.g. pay and deductions). They have been sorted and summarized and the effective dates have been de-normalized.

Extract Tables Grouping Characteristics:

- ❑ Current and synchronized with HR as of the last load date.
- ❑ De-Normalized.

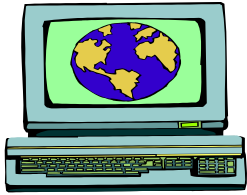


TABLE GROUPING

CHART OF ACCOUNTS

Include:

Table Name	Table Descriptions
REF_AGYX	Agency Reference Table
REF_ORGN	Organization Reference Table

TABLE NAME	<input type="text" value="REF_ORGN"/>
TABLE DESCRIPTION	<input type="text" value="Organization Reference Table"/>

Field Name	Field Description	Field Datatype	Prim Key	For Key	Foreign Key Parent Table
AGCY_CD	Agency Code	CHAR(3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
FISC_YR	Fiscal Year	CHAR(4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ORGN_CD	Organization Code	CHAR(4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
LEVEL_IND		CHAR(2)	<input type="checkbox"/>	<input type="checkbox"/>	
ORGN_LONG_DESC	Organization Name	CHAR(30)	<input type="checkbox"/>	<input type="checkbox"/>	
RPTG_ORGN_1		CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
RPTG_ORGN_10		CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
RPTG_ORGN_11		CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
RPTG_ORGN_12		CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
RPTG_ORGN_2		CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
RPTG_ORGN_3		CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	



TABLE GROUPING

CHART OF ACCOUNTS

All Chart of Account (COA) tables will be maintained in the SAM II Financial System. One COA table, Agency, provides the foundation for HR Data Warehouse security. Also, many of the tables in the SAM II HR/Payroll system that reference COA information will be copied to the Data Warehouse. Therefore some COA tables will be required in the Data Warehouse to support security as well as reports and inquiries.

In order for tables to join directly to the COA reference tables the fiscal year must be added to any table with COA elements. This will be done as part of load and update process for these tables. For tables that store transactional events this is sufficient as the record should correctly store the fiscal year as of the date of the event.

However, for effective dated tables that cover a period of time potentially spanning multiple fiscal years a new effective dated record will need to be inserted to record the change and maintain the ability to join accurately. This means that an annual fiscal year rollover process will need to be executed against these tables. This process will create new records containing the changed fiscal year information. In addition, any future dated records pointing to the 'old' fiscal year will be modified to use the new fiscal year as well.

Fiscal year will be added to all reference and background tables containing chart of account elements if it is not already present.

Once per year, a SAM II fiscal year roll over process will create new records and update existing records, which contain Chart of Account (COA) details and are Not Effective Dated. Any record in these tables, which expires on or after the first day of the new fiscal year will be selected.

Selecting rows that contain the agency's code in either the home agency or accounting agency columns will separate the General Ledger Extract of accounting data. This process ensures that agencies receive data about employees that have billed their agency even if they do not work there. Employee Id, name, title code, and position data is available to help the agency identify the employee when this case arises.

Chart of Accounts Tables Grouping Characteristics

- ❑ Keyed By Fiscal Year
- ❑ Joins to COA tables should include Fiscal Year



TABLE GROUPING

TABLES CONTAINING COA CODES

Include:

Table Name	Description
BKG_ASGN	Employee Assignment Background Table
BKG_CCAN	Check Cancel Background Table
BKG_EEO6	EEO6 Employee Background Table
BKG_ESML	Employee Assignment Background Table
BKG_ETRP	Training Profile Background Table
BKG_JNOT	Job Notice Background Table
BKG_JOBA	Job Application Background Table
BKG_PHST	Position Table
BKG_PSBH	Position Budget History Background Table
EXT_DED_DETAIL	PCEF Deduction Detail Extract
EXT_GL_DED_DETAIL	XDEDD Extract
EXT_GL_PAY_DETAIL	XPAYD Extract
EXT_PAY_DETAIL	PCEF Pay Detail Extract
EXT_PCEF_EMPL_ATTR	PCEF Employee Attributes Extract
EXT_PCEF_HEADER	PCEF Header Record Extraction
EXT_GL_FRG_DETAIL	XDEDD Fringe Detail Extract
EXT_GL_BEN_DETAIL	XDEDD Benefit Detail Extract
REF_DPLN	Deduction Plan Reference Table
REF_EVTNT	Event Type Reference Table
REF_LDPR	Labor Distribution Profile Reference Table

TABLE NAME	REF_LDPR				
TABLE DESCRIPTION	Labor Distribution Profile Reference Table				
Field Name	Field Description	Field Datatype	Prim Key	For Key	Foreign Key Parent Table
AGCY_CD	Agency Code	CHAR(3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
FISC_YR	Fiscal Year	CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
LDPR_CD	Labor Distribution Profile Code	CHAR(5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
LDPR_EFF_DATE	Labor Distribution Profile Effective Date	CHAR(8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ACTV_CD_1	Activity Code	CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
ACTV_CD_10	Activity Code	CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
ACTV_CD_2	Activity Code	CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
ACTV_CD_3	Activity Code	CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
ACTV_CD_4	Activity Code	CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
ACTV_CD_5	Activity Code	CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
ACTV_CD_6	Activity Code	CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	



TABLE GROUPING

TABLES CONTAINING COA CODES

These tables are grouped together because they contain COA codes. These tables will contain a Fiscal Year that can be used in the join to the COA tables. These tables will have more records than the online system due to new records being created by the Fiscal Year End process with the new Fiscal Year value.

Tables Containing Chart of Accounts Codes Grouping Characteristics:

- ❑ Table may not be keyed by Fiscal Year.
- ❑ A record will exist for each Fiscal Year the record applies to.

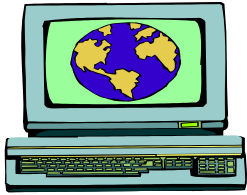


TABLE GROUPING

EFFECTIVE DATED TABLES

(NORMALIZED)

TABLE NAME	REF_TAXC				
TABLE DESCRIPTION	Tax Class Reference Table				
Field Name	Field Description	Field Datatype	Prim Key	For Key	Foreign Key Parent Table
TAXC_CD	Tax Class Code	CHAR(1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
TAXC_EFF_DATE	Tax Class Effective Date	CHAR(8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CITY_TAX_DEDT_CD	Deduction Type Code	CHAR(5)	<input type="checkbox"/>	<input type="checkbox"/>	
CITY_TAX_DPLN_CD	City Tax Deduction Plan Code	CHAR(5)	<input type="checkbox"/>	<input type="checkbox"/>	
DELETE_FL		CHAR(1)	<input type="checkbox"/>	<input type="checkbox"/>	
EMP_APPT_DESC	Employee/Appointment Description	CHAR(15)	<input type="checkbox"/>	<input type="checkbox"/>	
FED_TAX_DEDT_CD	Deduction Type Code	CHAR(5)	<input type="checkbox"/>	<input type="checkbox"/>	
FED_TAX_DPLN_CD	Federal Tax Deduction Plan Code	CHAR(5)	<input type="checkbox"/>	<input type="checkbox"/>	
LAST_UPDT_DATE		CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
LAST_UPDT_USER_ID		CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
OTAX_DEDT_CD_1	Deduction Type Code	CHAR(5)	<input type="checkbox"/>	<input type="checkbox"/>	



TABLE GROUPING

EFFECTIVE DATED TABLES (NORMALIZED)

The majority of the effective dated tables, that contain data that change infrequently or have a low level of impact if not joined correctly, are not subject to the effective date de-normalization. These tables do not contain the effective date foreign keys from other tables.

Effective Dated Normalized Tables Grouping Characteristics:

- ❑ Normalized
- ❑ Must be joined using Effective Date logic.

The Effective Dated Normalized Table List is found on the next few pages.

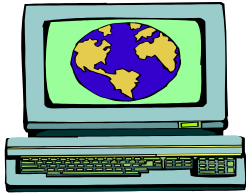


TABLE GROUPING

EFFECTIVE DATED TABLES

(NORMALIZED)

Table Name	Description
BKG_CCAN	Check Cancel Background Table
BKG_DPBN	Dependent Benefits Background Table
BKG_DPND	Dependent Background Table
BKG_EEO6	EEO6 Employee Background Table
BKG_EIND	Incident Detail Background Table
BKG_EMER	Emergency Contact Background Table
BKG_EPEC	Performance Detail Comment Background Table
BKG_EPEV	Performance Summary Background Table
BKG_ESKL	Skills Profile Background Table
BKG_ETRP	Training Profile Background Table
BKG_EWRK	Prior Work Profile Background Table
BKG_INCC	Incident Detail Comments Background Table
BKG_JBIC	Job Interview Comments Background Table
BKG_JNOT	Job Notice Background Table
BKG_JNSA	Job Notice Schedule Activity Background Table
BKG_JOBA	Job Application Background Table
BKG_JOB1	Job Interview Background Table
BKG_JUS1	Job User Defined Screen 1 Background Table
BKG_LCNS	License Background Table
BKG_PASS	Pass Background Table
BKG_PSBH	Position Budget History Background Table
BKG_PUD1	Position User Defined Screen 1 Background Table
BKG_PUD2	Position User Defined Screen 2 Background Table
BKG_PUD3	Position User Defined Screen 3 Background Table
BKG_TENM	Tenure Status Background Table
BKG_USR1	Empl User Defined Screen 1 Background Table
BKG_USR2	Empl User Defined Screen 2 Background Table
BKG_USR3	Empl User Defined Screen 3 Background Table
BKG_USR4	Empl User Defined Screen 4 Background Table
BKG_USR5	Empl User Defined Screen 5 Background Table
BKG_USR6	Empl User Defined Screen 6 Background Table
BKG_USR7	Empl User Defined Screen 7 Background Table
BKG_USR8	Empl User Defined Screen 8 Background Table

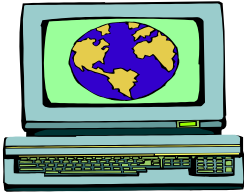


TABLE GROUPING

EFFECTIVE DATED TABLES cont.

(NORMALIZED)

BKG USR9	Empl User Defined Screen 9 Background Table
BKG VETR	Veteran Table
REF A21C	A21 Category Reference Table
REF A21F	A21 Function Reference Table
REF A21R	A21 Reporting Period Reference Table
REF AGYX	Extended Agency Reference Table
REF APSR	Applicant Status Reason Reference Table
REF APST	Applicant Status Reference Table
REF ASDF	Applicant Selection Definition Background Table
REF ATTG	Applicant Tracking Title Group Reference Table
REF ATVY	Applicant Tracking Activity Reference Table
REF CGRD	Course Grade Reference Table
REF CHRL	Chart Rule Reference Table
REF CNTY	County Code Reference Table
REF CPID	Contract Period Identification Reference Table
REF CPOL	Contract/Reserve Pay Policy Reference Table
REF CRSE	Course Reference Table
REF CTRY	Country Reference Table
REF CYCL	Pay Cycle Reference Table
REF DEGR	Degree Reference Table
REF DSBL	Disability Reference Table
REF DSCG	Discharge Type Reference Table
REF ECSO	Case Officer Reference Table
REF EEOC	EEO Job Category Reference Table
REF EEOE	EEO Employer Information Table
REF EEOF	EEO Function Reference Table
REF EEOL	EEO Location Reference Table
REF EEOM	EEO Multi-Location Reference Table
REF EEOR	EEO Rank Reference Table
REF EMPR	Employer Reference Table
REF ERAT	Career Rating Reference Table
REF ERTF	Career Rating Type Reference Table

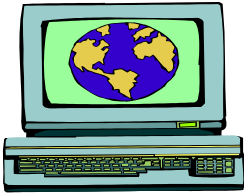


TABLE GROUPING

EFFECTIVE DATED TABLES cont.

(NORMALIZED)

REF_ETHN	Ethnicity Reference Table
REF_ETYP	Evaluation type Reference Table
REF_FACT	Other Factor Reference Table
REF_FINI	Bank GHRS Account Reference Table
REF_FLHR	FLSA Hours Reference Table
REF_FLPR	FLSA Profile Reference Table
REF_FLWK	FLSA Work Cycle Reference Table
REF_GEOG	Geographic Area Reference Table
REF_GRDE	Grade Reference Table
REF_INSC	Insurance Company Reference Table
REF_IRTG	Interview Rating Reference Table
REF_ISTS	Incident Status Reference Table
REF_ITYP	Incident Type Reference Table
REF_JBRQ	Job Requirement Reference Table
REF_JNSR	Job Notice Status Reason Reference Table
REF_JNST	Job Notice Status Reference Table
REF_JNTP	Job Notice Type Reference Table
REF_JOBS	Job Status Reference Table
REF_JSTA	Job Statements Reference Table
REF_LDPR	Labor Distribution Profile Reference Table
REF_LEVF	Leave Frequency Reference Table
REF_LPOL	Leave Policy Reference Table
REF_LTYP	License Type Reference Table
REF_MAJR	Formal Education Major Reference Table
REF_MILB	Military Branch Reference Table
REF_MILR	Military Rank Reference Table
REF_MSTS	Marital Status Reference Table
REF_NMCR	Name Change Reason Reference Table
REF_OCCG	Occupational Group Reference Table
REF_PACT	Personnel Action Reference Table
REF_PART	Personnel Action Reason Reference Table
REF_PAYF	Pay Event Frequency Reference Table
REF_PEX2	Override Budget Level Reference Table
REF_PEXP	Expense Category Reference Table
REF_PNST	Pension System Reference Table
REF_PREX	Name Prefix Reference Table
REF_PSBP	Budget Preparation Reference Table
REF_PSBS	Position Budget Status Reference Table
REF_PSTP	Pass Type Reference Table
REF_PSTS	Position Status Reference Table
REF_PYGP	Payroll Group reference Table
REF_PYNO	Payroll Number Reference Table
REF_RANK	Agency Ranking Reference Table



TABLE GROUPING

EFFECTIVE DATED TABLES cont.

(NORMALIZED)

REF_RCMD	Recommendation Reference Table
REF_REFR	Referral Source Reference Table
REF_RELT	Relationship Reference Table
REF_RESD	Residency Reference Table
REF_RNKM	Tenure Rank Reference Table
REF_RPRF	Performance Rating Profile Reference Table
REF_RPYF	Reserve Payout Factor Reference Table
REF_RSLT	Activity Result Reference Table
REF_SCHL	School Institution Table
REF_SFTF	Soft Fund Reference Table
REF_SKLL	Skill Level Reference Table
REF_SKLS	Skill Type Reference Table
REF_SPRQ	Special Requirement Reference Table
REF_ST	State Reference Table
REF_STEP	Step Reference Table
REF_SUFX	Name Suffix Reference Table
REF_TAXC	Tax Class Reference Table
REF_TAXM	Tax Marital Status Reference Table
REF_TAXR	Tax Reporting Reference Table
REF_TAXT	Tax Treaty Reference Table
REF_TCAT	Title Category Reference Table
REF_TCLT	Title Classification Reference Table
REF_TENS	Tenure Status Code Reference Table
REF_TETP	Test Type Reference Table
REF_TICA	Titles in Title Category Reference Table
REF_TIMC	Time Category Reference Table
REF_TRKC	Tracking Code Reference Table
REF_TTLG	Title Group Reference Table
REF_TXEN	Taxing Entity Reference Table
REF_ULOC	Union Local Reference Table
REF_VETS	Veteran Status Reference Table
REF_WKCY	Work Cycle Reference Table
REF_WKTP	Work Type Reference Table
REF_TITL	Title Reference Table
REF_STTL	Sub-Title Reference Table



TABLE GROUPING

NON EFFECTIVE DATED TABLES

Table Name	Description
REF_AUDF	Applicant Tracking User Defined Fields
REF_PUDF	Position User Defined Fields
REF_USDF	Employee User Defined Fields
REF_PPRL*	Pay Progression Rule Table
REF_LPRL*	Leave Progression Rule Table
REF_TAXD	Tax Reporting Description Reference Code
REF_WDAY	Work Day Reference Table

*Internal tables used for calculations within HR are extremely difficult to use in offline calculations to reproduce the payroll logic and calculations of the online system.

TABLE NAME	<input type="text" value="REF_WDAY"/>
TABLE DESCRIPTION	<input type="text" value="Work Day Reference Table"/>

Field Name	Field Description	Field Datatype	Prim Key	For Key	Foreign Key Parent Table
SCHD_DATE	Schedule Date	CHAR(8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WKCY_CD	Work Cycle Code	CHAR(5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DELETE_FL		CHAR(1)	<input type="checkbox"/>	<input type="checkbox"/>	
LAST_UPDT_DATE		CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
LAST_UPDT_USER_ID		CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
SCHD_DESC	Schedule Type	CHAR(13)	<input type="checkbox"/>	<input type="checkbox"/>	



TABLE GROUPING

NON EFFECTIVE DATED TABLES

Some tables in the Data Warehouse do not contain effective dates. Hence there is no dependent/prime table relationship that can vary over time and joins are relatively straightforward.

Non-effective dated tables are maintained in the Data Warehouse to synchronize with the SAM II HR/Payroll system as of the latest load date.

Non-Effective Dated Tables Grouping Characteristics:

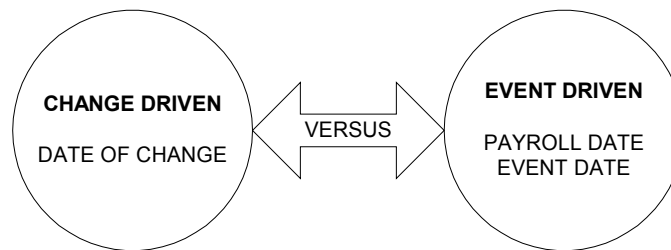
- ❑ No effective dates



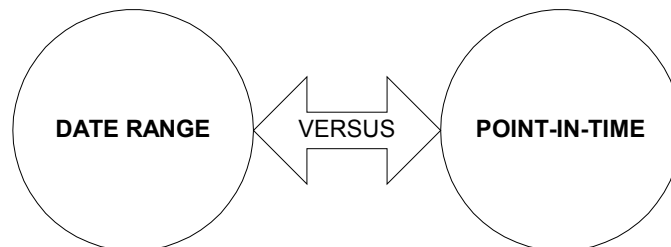
TABLE GROUPING

TIME / DATE CONCEPTS IN THE SAM II HR/PAYROLL DATA WAREHOUSE

Types of Dated Records



Types of Time Scenarios



Type of Data

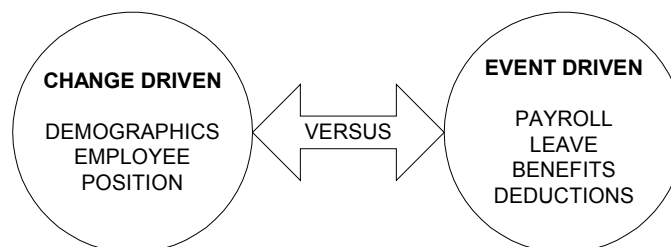




TABLE GROUPING

TIME / DATE CONCEPTS IN THE SAM II HR/PAYROLL DATA WAREHOUSE

Point-in-Time versus Date Range

When obtaining information in a report, one is either looking for information as of a particular time or over a date range. Obtaining data as of a point in time will select data as of a certain date and simply report its status. Obtaining information over a range of dates will present the data generally arranged chronologically.

Change Driven versus Event Driven

Change driven data occurs when a change to any attribute of an employee or position (which generates a new record) changes in a table. Event driven data is considered information that occurs as the result of an event. Examples would be payroll, leave, and deduction & benefit events. In these examples records are added to tables as a result of an event.



TABLE GROUPING

CHANGE DRIVEN SUMMARY TABLES

TABLE NAME	TABLE DESCRIPTION
SUM_DEMOGRAPHICS	Demographics Summary Table
SUM_EMPLOYEE	Employment Statistics Summary Table
SUM_POSITION	Agency Position History Summary Table
SUM_EMP_SALARY	Employee Salary
SUM_EMP_RATE	Employee Rate of Pay

TABLE NAME		SUM_EMPLOYEE			
TABLE DESCRIPTION		Employment Statistics Summary Table			

Field Name	Field Description	Field Datatype	Prim Key	For Key	Foreign Key Parent Table
ACTION_EFF_DATE	Nines Complimented Effective Date.	CHAR(8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
APPT_ID	Appointment ID	CHAR(1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
GHRIS_IN_EMPL_ID_NO	GHRIS Internal Employee ID Number	CHAR(10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
MTI_TRANS_SYS_ID	MTI System Transaction ID	CHAR(12)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
TIME_STAMP	Time Stamp	CHAR(9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
TRANS_TYPE	Transaction Type	CHAR(4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ACTION_EFF_DATE	Action Effective Date	CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
AMT_BASIS_DESC	Amount Basis ID Description	CHAR(16)	<input type="checkbox"/>	<input type="checkbox"/>	
CERT_DATE	Certificate Date	CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
CERT_NUM	Certificate Number	CHAR(7)	<input type="checkbox"/>	<input type="checkbox"/>	
CIVS_CD	Civil Service Status Code	CHAR(5)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	REF_CIVS



TABLE GROUPING

CHANGE DRIVEN SUMMARY TABLES

Change driven data occurs when a change to any attribute of an employee or position (which generates a new record) changes in a table.

Change Driven Summary Tables Grouping Characteristics:

- ❑ De-Normalized
- ❑ A new record loaded when any attribute of the key changes.
- ❑ Data must be retrieved very carefully. The actual image of a slice or point in time is achieved by assembling the most recent record for each employee prior to the date of question.
- ❑ Due to the change driven nature of the records in these tables, analysis is mainly by a single point in time. Analysis over a date range can be done with acceptable difficulty on the Employee Action and Employee Action Reason fields (PACT_CD/PACT_EFF_DATE and PART_CD/PART_EFF_DATE). However analysis or retrieval of records over a date range for any other fields in these tables, while possible, is extremely difficult to code. Determine how to validate your results.
- ❑ Data is accessed, by retrieving the most recent records for each employee or position.

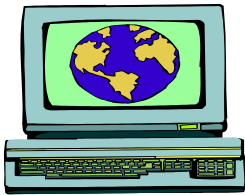


TABLE GROUPING

EVENT DRIVEN SUMMARY TABLES

Include:

Table Name	Table Description
SUM_BENEFITS	Agency Benefits Summary Table
SUM_DEDUCTIONS	Agency Deduction Summary Table
SUM_LEAVE	Agency Leave Summary Table
SUM_LV_ACCR_USE	Agency Leave Usage and Accrual
SUM_PAYROLL	Payroll Summary Table

TABLE NAME	SUM_LEAVE				
TABLE DESCRIPTION	Agency Leave Summary Table				
Field Name	Field Description	Field Datatype	Prim Key	For Key	Foreign Key Parent Table
APPT_ID	Appointment ID	CHAR(1)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	BKG_APPT
CYCL_CD	Pay Cycle Code	CHAR(5)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	REF_CYCL
CYCL_EFF_DATE	Pay Cycle Effective Date	CHAR(8)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	REF_CYCL
GHRN_IN_EMPL_ID_NO	GHRN Internal Employee ID Number	CHAR(10)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	BKG_APPT
GTN_RUN_NUM	Gross-to-Net Run Number	CHAR(6)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
LCATG_CD	Category Code	CHAR(5)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	REF_CATG
LCATG_EFF_DATE	Category Effective Date	CHAR(8)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	REF_CATG
LEVNT_CD	Event Type Code	CHAR(5)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	REF_EVNT, REF_LPET
LEVNT_EFF_DATE	Event Effective Date	CHAR(8)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	REF_EVNT, REF_LPET
BGN_LEAVE_BALANCE	Beginning Leave Balance	DECIMAL(13,2)	<input type="checkbox"/>	<input type="checkbox"/>	
CCPR_CD	Client Profile Code	CHAR(6)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	REF_CCPR

Field Name	Field Description	Field Datatype	Prim Key	For Key	Foreign Key Parent Table
CCPR_EFF_DATE	Client Compensatory Profile Effective Date	CHAR(8)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	REF_CCPR
CCPR_LONG_DESC	Client Profile Long Description	CHAR(30)	<input type="checkbox"/>	<input type="checkbox"/>	
CCPR_SHORT_DESC	Client Profile Short Description	CHAR(12)	<input type="checkbox"/>	<input type="checkbox"/>	
CNTY_CD		CHAR(3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	REF_CNTY
CNTY_EFF_DATE		CHAR(8)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	REF_CNTY
CYCL_EXP_DATE	Pay Cycle Expiration Date	CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
CYCL_LONG_DESC	Pay Cycle Long Description	CHAR(30)	<input type="checkbox"/>	<input type="checkbox"/>	
CYCL_SHORT_DESC	Pay Cycle Short Description	CHAR(12)	<input type="checkbox"/>	<input type="checkbox"/>	
EMP_ID	Employee ID	CHAR(10)	<input type="checkbox"/>	<input type="checkbox"/>	
END_LEAVE_BALANCE	Ending Leave Balance	DECIMAL(13,2)	<input type="checkbox"/>	<input type="checkbox"/>	



TABLE GROUPING

EVENT DRIVEN SUMMARY TABLES

Event driven data is considered information that occurs as the result of an event. Examples would be payroll, leave, deduction, and benefit events. In these examples records are added to tables as a result of an event.

Event Driven Summary Tables Grouping Characteristics:

- ❑ De-Normalized
- ❑ Loaded when Payroll runs.
- ❑ Uses straight-forward greater than/less than logic on dates to retrieve data.
- ❑ Uses GTN #



TABLE GROUPING

SNAPSHOT TABLES

Include:

Table Name	Description
SNAP_EMPLOYEE	Snapshot of current Employee History
SNAP_POSITION	Snapshot of current Position History

TABLE NAME		SNAP_POSITION			
TABLE DESCRIPTION		Position Snapshot Table			

Field Name	Field Description	Field Datatype	Prim Key	For Key	Foreign Key Parent Table
POSN_AGCY_CD	Agency Code	CHAR(3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
POSN_NUM	Position Number	CHAR(12)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
POSN_ORGN_CD	Organization Code	CHAR(4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ACTV_CD	Activity Code	CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
AGCY_CD	Agency Code	CHAR(3)	<input type="checkbox"/>	<input type="checkbox"/>	
CIVS_CD	Civil Service Status Code	CHAR(5)	<input type="checkbox"/>	<input type="checkbox"/>	
CIVS_LONG_DESC	Civil Service Status Long Description	CHAR(30)	<input type="checkbox"/>	<input type="checkbox"/>	
DPOL_LONG_DESC	Deduction Policy Long Description	CHAR(30)	<input type="checkbox"/>	<input type="checkbox"/>	
FISC_YR	Fiscal Year	CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	
FLPR_LONG_DESC	FLSA Profile Long Description	CHAR(30)	<input type="checkbox"/>	<input type="checkbox"/>	
FUNC_CD	Function Code	CHAR(4)	<input type="checkbox"/>	<input type="checkbox"/>	



TABLE GROUPING

SNAPSHOT TABLES

A large percentage of inquiries requested from the Data Warehouse are of current information. To support these inquiries a set of snapshot tables and views were created to help facilitate inquiry and reporting needs.

Snapshot data will be wiped out and reloaded each night.

Given that an effective dated table can only have one set of results on a specific day, there will only be one record for each unique code updated nightly.

Snapshot tables are considered “de-normalized” because they contain “pre-joined” data from different tables.

Snap Shot Tables Grouping Characteristics:

- ❑ All Snap Shot Tables contain the data current for today as of today.
- ❑ Data changes daily.
- ❑ Tables not Effective Dated.
- ❑ De-Normalized

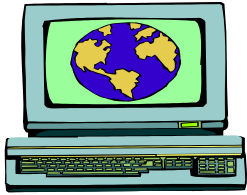


TABLE GROUPING

LOG TABLES

Include:

Table Name	Description
BKG_REMARKS	Remarks table
BKG_ESML	Employee Assignment Background Table
BKG_LVDT	Leave Detail Background Table
BKG_PCHD	Pay Check Table

TABLE NAME	BKG_LVDT				
TABLE DESCRIPTION	Leave Detail Background Table				

Field Name	Field Description	Field Datatype	Prim Key	For Key	Foreign Key Parent Table
ACTL_LEVNT_CD	Event Type Code	CHAR(5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
AGCY_CD	Agency Code	CHAR(3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
APPT_ID	Appointment ID	CHAR(1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
COMP_SEQ_NUM	Component Sequence Number	CHAR(2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DOC_CD	Document Type Code	CHAR(4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DOC_NUM	Document Number	CHAR(12)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
FISC_YR	Fiscal Year	CHAR(4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
GHRS_IN_EMPL_ID_NO	GHRS Internal Employee ID Number	CHAR(10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
LINE_NUM	Document Line Number	CHAR(4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
LVDT_EFF_DATE	Leave Detail Effective Date	CHAR(8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
RETRO_SEQ_NUM	Retro Sequence Number	CHAR(2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	



TABLE GROUPING

LOG TABLES

These tables will support reports and inquiries about event data. For example, the data produced by specific payroll runs or the actions recorded against an employee. Subsequent effective dated table changes will never cause updates to data in these tables as it represents the exact state of the data at the time the event was recorded.

This process used to produce log tables will only select records that were updated during the previous day. Any records processed after midnight will not be loaded to the warehouse until the next days warehouse load cycle.

Log Tables Grouping Characteristics:

- ❑ Normalized
- ❑ The data in these tables may be a day delayed in being populated in production. The reason for this delay is to ensure the data is always loaded completely and accurately from Midnight to Midnight no matter what time of the day the warehouse load cycle may run.

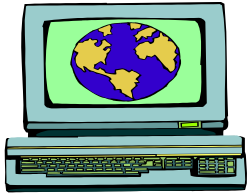


TABLE GROUPING

LEGACY TABLES

TABLE_NAME	TABLE_DESCRIPTION
REF_DEPARTMENT	MESH Department
REF_DEPT_CLASS	MESH Department Class
REF_SECTION	MESH Section
REF_DIVISION	MESH Division

TABLE NAME	REF_DEPARTMENT				
TABLE DESCRIPTION	MESH Department				
Field Name	Field Description	Field Datatype	Prim Key	For Key	Foreign Key Parent Table
DEPT_CD	Department Code	CHAR(2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DEPT_EFF_DATE	Department Code Effective Date	CHAR(8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DEPT_EXP_DATE	Department Code Expiration Date	CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
DEPT_LONG_DESC	Department Long Description	CHAR(30)	<input type="checkbox"/>	<input type="checkbox"/>	
DEPT_SHORT_DESC	Department Short Description	CHAR(15)	<input type="checkbox"/>	<input type="checkbox"/>	



TABLE GROUPING

LEGACY TABLES

Tables populated with data strictly related to Legacy data from PARS and PMS.

Legacy Tables Grouping Characteristics:

- Department codes from PARS system



TABLE GROUPING

TABLES CONTAINING LEGACY CODES

Table Name	Description
BKG_EMID	Employee By ID Table
REF_STEP	Step Table
REF_JOBS	Job Status
REF_EMPS	Employment Status
REF_TITL	Title Table
REF_PART	Personal Action Reason
REF_GRDE	Grade Table
SUM_EMPLOYEE	Employee Summary Table
SUM_POSITION	Position Summary Table

TABLE NAME		REF_TITL	
TABLE DESCRIPTION		Title Reference Table	

Field Name	Field Description	Field Datatype	Prim Key	For Key	Foreign Key Parent Table
TITL_CD	Title Code	CHAR(6)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
TITL_EFF_DATE	Title Effective Date	CHAR(8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A21_RPT_INCL	A21 Reporting Include	CHAR(7)	<input type="checkbox"/>	<input type="checkbox"/>	
DELETE_FL		CHAR(1)	<input type="checkbox"/>	<input type="checkbox"/>	
DOL_TITL_CD	DOL Title Code	CHAR(6)	<input type="checkbox"/>	<input type="checkbox"/>	
DOL_TITL_EFF_DATE	Department of Labor Title Effective Date	CHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	
EEO_INDST_SCTR_CD	EEO Industrial Sector Code	CHAR(5)	<input type="checkbox"/>	<input type="checkbox"/>	
EEO_RPT_INCL	EEO Reporting Include	CHAR(7)	<input type="checkbox"/>	<input type="checkbox"/>	
EEOC_CD	EEO Job Category Code	CHAR(2)	<input type="checkbox"/>	<input type="checkbox"/>	
ETYP_CD	Evaluation Type Code	CHAR(5)	<input type="checkbox"/>	<input type="checkbox"/>	
EVAL_PRD_BASIS	Evaluation Period Basis	CHAR(12)	<input type="checkbox"/>	<input type="checkbox"/>	



TABLE GROUPING

TABLES CONTAINING LEGACY CODES

As a part of the MESH load process, the program crosswalks MESH codes found on the detail record to the appropriate SAM II code. In addition, it performs a look up to the warehouse reference table to see if the code already exists and if not a new row is inserted into the reference table. These are identified as reference table entries originating from MESH or PMS.

Tables Containing Legacy Codes Grouping Characteristics:

- SAM II Tables with MESH codes added as fields and found in the Data Warehouse.

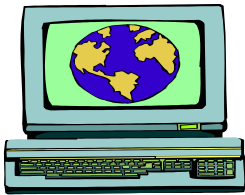


TABLE GROUPING

SPECIAL VIEWS

BASE TABLE

Customers		
Customer ID	Company Name	City
BSBEV	B's Beverages	London
EASTC	Eastern Connection	London
HANAR	Hanari Carnes	Rio de Janeiro

VIEW

(Alternate way of looking at the data in the base table.)

London Orders		
	Company Name	City
	B's Beverages	London
	Eastern Connection	London

MULTIPLE BASE TABLES

Customers			Orders			
Customer ID	Company Name	City	Order ID	Customer ID	Required Date	Employee
BSBEV	B's Beverages	London	10931	HANAR	21-Apr-96	Dodsworth, Anne
EASTC	Eastern Connection	London	10943	BSBEV	05-Apr-96	Davolio, Nancy
HANAR	Hanari Carnes	Rio de Janeiro	10987	EASTC	25-Apr-96	Peacock, Margare

VIEW

(Alternate way of looking at the data in the base tables.)

London Orders for April				
	Company Name	City	Order ID	Required Date
	B's Beverages	London	10943	05-Apr-96
	Eastern Connection	London	10987	25-Apr-96



TABLE GROUPING

SPECIAL VIEWS

Special views have been created to simplify access to commonly used data. These views include:

- ❑ Current Day View
- ❑ Agency View

Current Day Views of effective dated Reference tables are accessible via views designed to simplify current date analysis. The effective dated tables themselves provide the current state of the information for all effective time periods in the SAM II HR/Payroll system. These tables are loaded this way to retain the effective date features for expert users. However, the novice user may find joins between effective dated tables too complex for their skill level, therefore, current date views (of Reference Tables only) are available to allow users to join to the table row in effect 'today' using the code only.

Selecting from each table the rows with the highest effective date less than or equal to the current date will create a current date view of effective dated tables.

- ❑ Current Day Views do not require effective dated logic.
- ❑ The Current Day View's naming convention will add the extension of "CURR" to the table's name. (e.g., REF_ST_CURR)

Agency Views are special views of base tables that pre-select only the records for a specific agency based upon the home and position agency fields.

- ❑ Agency Views require effective dated logic.
- ❑ The Agency View's naming convention will add agency's number as the extension to the table's name. (e.g., BKG_ADDR_300)

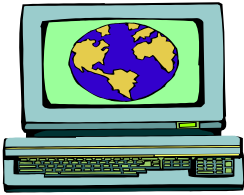
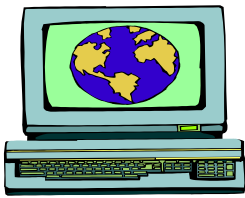


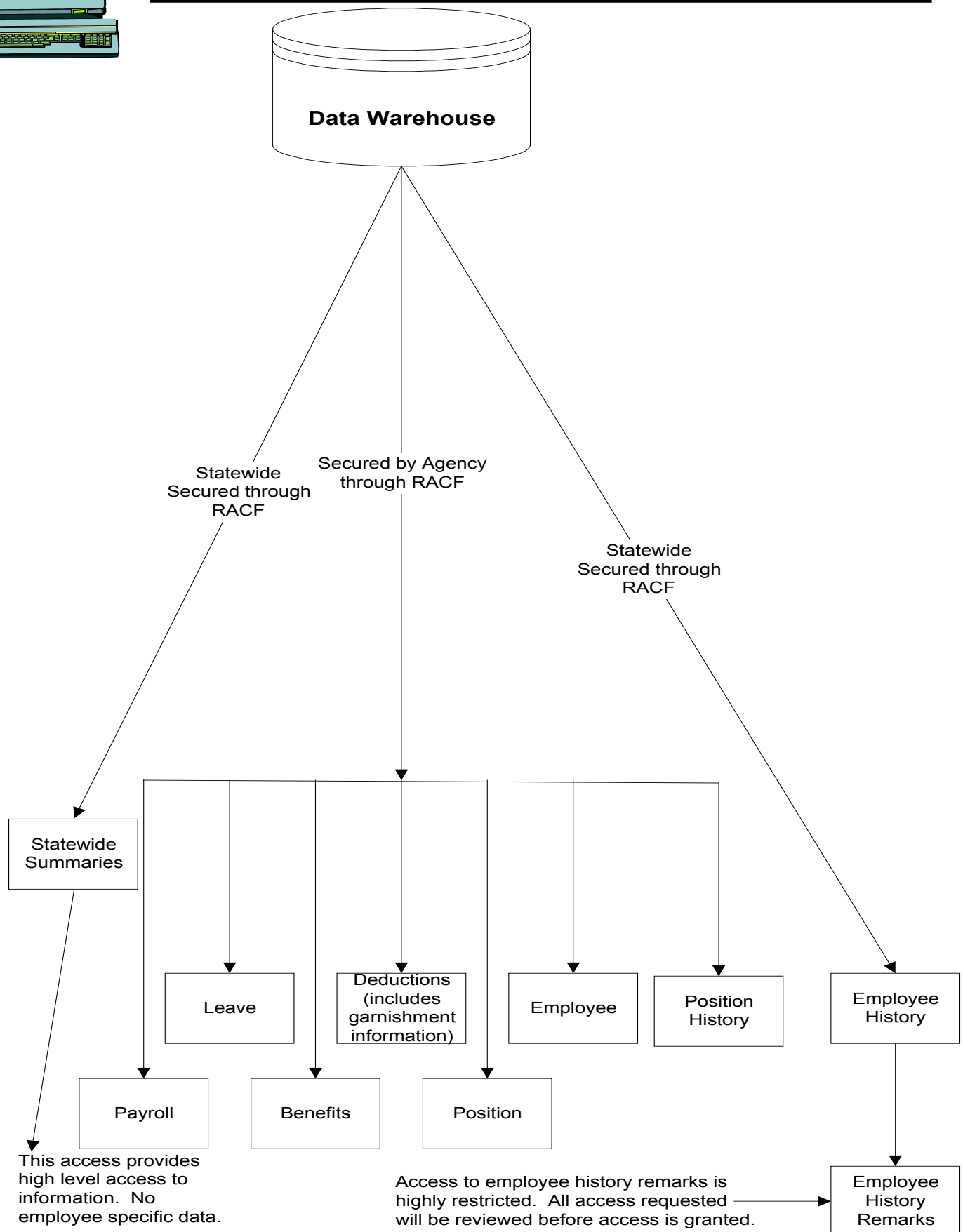
TABLE GROUPING

TABLE GROUPING QUICK REFERENCE

- ❑ **Extract Tables**
 - ❑ Current and synchronized with HR as of the last load date.
 - ❑ De-Normalized
- ❑ **Chart of Accounts Tables**
 - ❑ Keyed By Fiscal Year
 - ❑ Joins to other tables should include Fiscal Year.
- ❑ **Tables containing COA Codes**
 - ❑ Table may not be keyed by Fiscal Year.
 - ❑ A record will exist for each Fiscal Year the record applies to.
- ❑ **Effective Dated Normalized Tables**
 - ❑ Normalized
 - ❑ Must be joined using Effective Date logic.
- ❑ **Non-Effective Dated Tables**
 - ❑ No effective dates (can use direct joins)
- ❑ **Change Driven Summary Tables**
 - ❑ De-Normalized
 - ❑ A new record loaded when any attribute of the key changes.
 - ❑ Data must be retrieved very carefully.
 - ❑ Analysis is mainly by a single point in time.
 - ❑ Data is accessed by retrieving the most recent records
- ❑ **Event Driven Summary Tables**
 - ❑ De-Normalized
 - ❑ Loaded when Payroll runs.
 - ❑ Uses straightforward greater than/less than logic on dates to retrieve data.
- ❑ **Snapshot Tables**
 - ❑ All SnapShot Tables contain the data current for today as of today.
 - ❑ Data changes daily
 - ❑ Tables not Effective Dated
 - ❑ De-Normalized
- ❑ **Log Tables**
 - ❑ Normalized
 - ❑ May have incremental counter for key.
 - ❑ Tables may be a day delayed.
- ❑ **Legacy Tables**
 - ❑ Department codes from PARS system
- ❑ **Tables containing Legacy codes**
 - ❑ Uses Legacy codes
- ❑ **Special Views**
 - ❑ Data is available via views designed to simplify analysis.



HR DATA WAREHOUSE





HR DATA MODEL SECURITY

There are a number of security related requirements for the HR/Payroll Data Warehouse. There are three layers of security to be considered when defining these requirements:

- ❑ Statewide Detail
- ❑ Agency Detail
- ❑ Statewide Summaries

Security will be maintained by OA. All levels of access to the warehouse are controlled by the agencies and can be restricted to individual areas of analysis.

RACF/SDC mainframe security groups determine security for the Data Warehouse. Users are associated with one or more security groups based on their RACF user id.

Agencies will choose which users are assigned to the designated security groups.

RACF security groups will limit both back-end and front-end users.



HR DATA MODEL REVIEW

TABLE TYPES

- ☐ EXTRACT TABLES (EXT)
- ☐ BACKGROUND TABLES (BKG)
- ☐ REFERENCE TABLES (REF)
- ☐ SUMMARY TABLES (SUM)
- ☐ SNAPSHOT TABLES (SNAP)

SUBJECT AREAS

- ☐ POSITION CONTROL
- ☐ APPLICANT TRACKING
- ☐ EMPLOYEE
- ☐ DEDUCTIONS
- ☐ BENEFITS
- ☐ LEAVE
- ☐ PAYROLL
- ☐ DEMOGRAPHICS
- ☐ EEO REPORTING
- ☐ MISCELLANEOUS
- ☐ ALL

TABLE GROUPINGS

- ☐ EXTRACT TABLES
- ☐ CHART OF ACCOUNTS TABLES
- ☐ TABLES CONTAINING COA CODES
- ☐ EFFECTIVE DATED NORMALIZED TABLES
- ☐ NON-EFFECTIVE DATED TABLES
- ☐ CHANGE DRIVEN SUMMARY TABLES
- ☐ EVENT DRIVEN SUMMARY TABLES
- ☐ SNAPSHOT TABLES
- ☐ LOG TABLES
- ☐ LEGACY TABLES
- ☐ TABLES CONTAINING LEGACY CODES
- ☐ SPECIAL VIEWS